ŏ

```
Command line parameters:
-MODEL=frame+ p2n.model -DEV=xlh
-Q=/cgn2_1/USPTO_spool/US10063731/runat_01092004_155040_18714/app_query.fasta_1.455
-D2=/cgn2_1/USPTO_spool/US10063731/runat_01092004_155040_18714/app_query.fasta_1.455
-DB=GenEmbl -OFMT=fastap -SUFFIX=rge -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE=LOCAL
-OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000
-USER=US10063731 @CGN 1 1 2527 @runat_01092004_155040_18714 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBIOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DBLEXT=7
                                                                                                                                                                                                                                                                          9; Search time 2829 Seconds (without alignments) 3998.774 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-063-731-118
1357
1 MSTTTCQVVAFLLSILGLAG.......DGGARTEDEVQSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6940544
GenCore version 5.1.6
(c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                      frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    seqs, 21671516995 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tisfying chosen parameters:
                                                                                                                                                                                                                                                                             2, 2004, 18:28:29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 gummaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10.0 , Xgapext
10.0 , Ygapext
6.0 , Fgapext
6.0 , Delext
                                                                                                                                                                                         nucleic search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #: nm
                                                   lght
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gb ba:*
gb ow:*
gb ow:*
gb ow:*
gb pat:*
gb vi:*
gb vi:*
em pa:*
em ph:*
em ph:
                                                                                                                                                                                                                                                                                 September
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BLOSUM62
Xgapop 1
Ygapop 1
Fgapop
Delop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genrand State of Stat
                                               Copyri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3470272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits sa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seq length:
Maximum DB seq length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                         protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Title:
Perfect sc
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Searched
                                                                                                                                                                                                                                                                                    Run on:
```

```
em_htgo_other:
     em_htg_hum:*
em_htg_inv:*
em_htg_other:'
em_htg_pln:*
em_htg_rod:*
em_htg_rod:*
em_htg_wam:*
em_htg_wam:*
em_htg_wam:*
em_htg_wam:*
em_htg_wam:*
em_htg_wam:*
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	21069 Homo sap	237992	AX4/2954 Sequence	88 Sequenc	57	Homo	Ношо	Homo	368 Mus	150 Mus	AF349451 Mus muscu	and Gastr	BC063845 Homo sapi	LO.	C4	Seque	AX380725 Sequence	Homc.	ght J	AF087825 Mus muscu	212		Mus	Seque	AK096063 Homo sapi	Seque	BC030524 Homo sapi	Rattus	Karr	0 0	1497 Homo	Seque	3131	6312	4896 Human a	3242 Secret	321	3 8969	49889	83410 Sequenc	AX083420 Sequence
SUMMARIES	di	901	BD23799	AX472954	AX37628	AX69725	AY35847	AF34945	AK09847	AF22106) AF349450) AF349451	D AF54V455	BC063845	BC060425	AC016252	AX380609	AX380725	AC010810	E31608	AF087825		BC05000	AC012013		AK096063	AX921675	BC030524	AC098329	AC097923	AC134606	0 4	S	3	BD206312	σ	5324	\mathbf{H}		498	83	
	Length DB	816 9	982	1869 6	121													423						130130 2 888 10		2859 9		919	225	385	914		7 2 3	253	253	546	711	787	581	580 1(78	95
& Query	Match	100.	100.	100.	1001	100.	100.	93.	93.	91	89.	85.	20 0 44 C	. 18	74.	29.	29.	29	28	28.	28.	9 6	מ מ	0 0	28.	28	27.	27.	27.	27.				27.	27.	27.	7	27.	27.	27.		0
	Score	1357	സ	1357	ባベ	n	າຕ	1264	1264	1235.5	1217.5	1165.5	1120	1107 5	1011.5	(6)	394	394	389	388	388	7 00 00	90 00 90 00	3 8 8 3 8 8	382	382	375.5	75	373	373	370	" "	Ü	368.5	39	39	9	39	.,,	367	364.5	9
Result	. CN	П	7	m •	4	שיר	7	60	6	10	11	12	13	+ t	16	c 17	Н	19	20	21	22	23.0	. 7 C	0 70 0	27	28	29	30	m	c 32	33	40 C	י ע מי מי	37	38	39	40	41	42	43	44	45

ALIGNMENTS

: WO or:

pat

699 240 729 260

489 180 549 200 609

Sep

Fri

```
PAT 17-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Craniata, Vertebrata, Euteleostomi,
Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JP 2002524103-A/1
06-AUG-2002
14-SEP-1999 JP 2000570197
16-SEP-1998 US 09/154444
PAUL O SHEPPARD, KEVIN P FOLEY
C12N15/09, A61K38/00, A61K39/395, A61K39/395, A61P1/04, A61P1/14,
A61P3/08,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PC C12N1/19,C12N1/21,C12N1/21,C12N1/C12N1/68,G01N33/15,
,C12Q1/68,G01N33/15,
PC G01N33/50,G01N33/53,G01N33/57,C12N15/00,C12N5/00,A61K37/02
Gastric polypeptide ZSIG28
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C12N1/15, C12N1/19, C12N1/21, C12N2/10, C12N2/02, C12N2/19, C12N1/15, C12N1/19, C12N1/21, C12N2/10, C12N2/02, C12N2/08, C12O1/02 PC
        CTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAAGCCAACATGACATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                        SerGlyIleMetPheIleValSerGlyLeuCysAlaIleAlaGlyValSerValPheAla
                                                                                                            AsnMetLeuValThrAsnPheTrpMetSerThrAlaAsnMetTyrThrGlyMetGlyGly
                                                                                                                                                                                                                490 ATGGTGCAGACTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTCGTGGGCTGGGGTC
                                                                                                                                                                                                                                                                                                                                          ProGluGluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr
                                                                                                                                                                                                                                                                                                                                                                TyrAspGlyGlyAlaArgThrGluAspGluValGlnSerTyrProSerLysHisAspTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MetValGInThrValGInThrArgTyrThrPheGlyAlaAlaLeuPheValGlyTrpVal
                                                                                                                                                                                                                                                                    AlaGlyGlyLeuThrLeuIleGlyGlyValMetMetCysIleAlaCysArgGlyLeuAla
                                                                                                                                                                                                                                                                                                       550 deregaggeercaeacraarraggggrengargargrearecarcecegggeera
                                                                                                                                                                                                                                                                                                                                                                                                                  LyBProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLysIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BD237992

N Gastric polypeptide ZSIG28.
BD237992.
BD237992.1 GI:33047762
BD237992.1 GI:33047762
JP 2002524103-A/1.
Homo sapiens (human)
Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata;
Mammalia; Eutheria; Primates; Catarrhini
1 (bases 1 to 982)
Sheppard, P.O. and Foley, K.P.
Gastric polypeptide ZSIG28
Patent: JP 2002524103-A 1 06-AUG-2002;
ZYMOGENETICS INC
OS Homo sapiens (human)
PN JP 2002524103-A/1
PD 06-AUG-2002
PF 14-SEP-1999 UP 2000570197
PR 16-SEP-1999 US 09/154444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (70). (853)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. .982
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Val
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       _£
        310
                                                                               370
                                                                                                                                                                                                                                                                                                                                                                              610
                                                                                                                                                                                                                                                                                                                                                                                                                                                     670
                                                                                                                   141
                                                                                                                                                                                             161
                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                             201
                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 2
BD237992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
                                                                              g
                                                                                                                                                   ద
                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                 g
                                          8
                                                                                                                   ਠੋ
                                                                                                                                                                                          ठ
                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                          ठ
                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                              Homo sapiens (human)

ESM Homo sapiens

Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostom;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

CE 1 (bases 1 to 816)

RS Niimi,T., Nagashima,K., Ward,J.M., Minoo,P., Zimonjic,D.B.,

Popescu,N.C. and Kimura,S.

Claudin-18, a novel downstream target gene for the T/EBP/NKX2.1

NOLE OF CELL Biol. 21 (21), 7380-7390 (2001)

INE 21470315

MED 1585919

INCE 2 (bases 1 to 816)

NIIMI,T. and Kimura,S.

E Direct Submission

Submitted (04-JAN-2000) Laboratory of Metabolism, DBS, National

Cancer Institute, NIH, 9000 Rockville Pike, Bethesda, MD 20892, USA

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /codon_gtart=1
/codon_gtart=1
/product="Claudin-18"
/product="Claudin-18"
/protein_id="AAF26448.1"
/db_xref="G1:6715518"
/translation="MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVF
QYEGLWRSCVRQSSGFTECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALK
CIRIGSMEDSAKANMTLTSGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGG
MYQTVQTRYTFGAALFVGWVAGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSV
AYKPGGFKASTGFGSNTKNKKIYDGGARTEDBVQSYPSKHDYV"
                                                                                                                                                                                                                                                                                                                                                                                                               Metabolism, DBS, National
Pike, Bethesda, MD 20892, USA
                        PRI 10-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10 ATGTCCACCACACATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGGCTGGCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ThrSerValPheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          130 ACCTCCGTGTTCCAGTACGAAGGCTCTGGAGGAGCTGCGTGAGGCAGAGTTCAGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /sArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AlaLeuMetIleValGlyIleValLeuGlyAlaIleGlyLeuLeuValSerIlePheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MetSerThrThrThrCysGlnValValAlaPheLeuLeuSerIleLeuGlyLeuAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CyslleAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCCATCTTTGCC
                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       816
261
0
0
0
0
                     816 bp mRNA
mRNA, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (1-816)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapie:
/mol_type="mRNA"
/db_xref="taxon:9606"
10...795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   261) x AF221069
                                     Claudin-18
                                                                            GI:6715517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2.75e-126
1357.00
100.00%
100.00%
100.00%
                                          ens
                                                                            н
                    AF221069
Homo sapie
AF221069
AF221069.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ThrGluCy
|||||||
ACCGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-063-731-118 (1-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
AF221069
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                              JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
```

Ы

ပ္ပ

g

Š

ઠે

g ð g

ò

ò d ð g ð 엄 ð 셤

```
Craniata, Vertebrata; Euteleostomi;
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                 ThrGluCysArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                                         genes
                        Chen, S.Y., Macina, R.A., Sun, Y. and Recipon, H.
Chen, S.Y., Macina, R.A., Sun, Y. and Recipon, H.
Compositions and methods relating to lung specific ger
Compositions and methods relating to lung specific ger
Patent: WO 0218576-A 3 07-MAR-2002;
Diadexus, Inc. (US)
Location/Qualifiers
/ Location/Qualifiers
/ Corganism="Homo sapiens"
/ Mol_type="unassigned DNA"
/ db_xref="taxon:9606"
                                                                                                    1869
261
0
0
0
                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                              (1-1869)
Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                              x AX472954
                                                                                                     7.96e-126
1357.00
100.00%
100.00%
sapiens (human)
sapiens
                                                                                                                                                (1-261)
                                                                                                           Score:
Percent Similarity:
Best Local Similarity:
                                                                                                                                                US-10-063-731-118
                                                                                               Alignment Scores:
Pred. No.:
                                                                                                                                                                                               143
                                                                                                                                                                                                                                               263
                                                                                                                                                                                                                                                                       323
                                                                                                                                                                                                                                                                                                                                               503
                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                   221
                                                                                                                                                                                                                                                                                                                                                                                                                                              743
                                                                                                                                                                                  21
                                                                                                                                                                                                                       203
                                                                                                                                                                                                                                                                                   101
                                                                                                                                                                                                                                                                                               383
                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                       443
                                                                                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                                                                                       563
                                                                                                                                                                                                                                                                                                                                                                                               623
                                                                                                                                                                                                                                                                                                                                                                                                                       683
                                                                                                                                                                       83
                                                                                                                                                                                                            41
                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                            81
                                                                                                                              Query Match:
                                                             Bource
SOURCE
ORGANISM
                       REFERENCE
AUTHORS
TITLE
JOURNAL
                                                      FEATURES
                                                                                    ORIGIN
                                                                                                                                                                                                                                            음 성 음
                                                                                                                                                                                                                                                                              8 6 8 6
8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                  원
장
                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                $ B $
                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                    Ωp
                                                                                                                                                                                           8 S
                                                                                                                                                                                                                   සු දු
                                                                                                                                                                               ठ
                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                       09-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                      849
                                                                                                                                                                                                                                                                                                           220
                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                       489
                                                                                                                                                                                                                                    160
                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                       609
                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                               699
                                                                                                                                                                                                                                                                                                                       729
                                                                                                                                                           100
                                                                                                                                                                                    120
                                                                                                                                                                                               429
                                                                                                                                                309
                                                                                                189
                                                                                    40
                                                                                                            9
                                                                                                                                    80
                                                                                                                                                                                                                                                                                                                                  PheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                                                                   SerilePheAla
                                                                                                                                                           IlevalGlyIlevalLeuGlyAlaIleGlyLeuLeuValSerIlePheAla
                                                                                                                                                                                   PAT
        982
261
0
0
0
       Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                        DNA
                                                                                                                                                                                                                                                                                                                                                                                                                        1869 bp
Patent WO0218576
                                                 (1-982)
                                                  US-10-063-731-118 (1-261) x BD237992
                                                                                                                                                                                                                                                                                                                                                                                                                                          GI:22207741
       3.49e-126
1357.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                        AX472954
Sequence 3 f
AX472954
AX472954.1
                                                                                                                                                             AlaLeuMetI
                                                                                                                                                                                                            SerGly11eN
                                                                                                             ThrSerVal
                                                                                                                                                                                                                                                                                             610 GCTGGAGGCC
                                                                                                                                                                                                                      TCCGGGATC
                                                                                                                                                                                                                                                            MetValGln'
                                                                                                                                                                                                                                                                                  181 AlaGlyGly
                                                                                            130 TGCATCGCGC
                                                                                                                    ACCTCCGTG
                                                                                                                                                                        310 GCCCTGATG
                                                                                                                                                                                                                                                                     ||||||||||
550 ATGGTGCAG
                 Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                    261 Val 261
                                                                                                                                                                                                                                                                                                                                                                                           |||
850 GTG 852
Alignment Scores:
Pred. No.:
Score:
                                                                                                                         190
                                                                                                             41
                                                                                                                                                             81
                                                                                                                                                                                                             121
                                                                                                                                                                                                                        430
                                                                                                                                                                                                                                                            161
                                                                                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                                                        670
                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 3
AX472954
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                      ద
```

g

d Š

ઠ

 δ පු à

262

9

40

322 100 382 120 442

80

200

682

240

180

622

160

141 ASIMETLEUVALThrASINPheTrpMetSerThrAlaAsimetTyrThrGlyMetGlyGly 16 510 AACATGCTGGTGACTACTTCTGGATGTCCCACGCTACGTTACACCGGCATGGGTGGG	Qy 241 TyrAspGlyGlyAlaArgThrGluAspGluValGlnSerTyrProSerLy8HisAspTyr 260	SOURCE ORGANISM Homo sapiens ORGANISM Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. REFERENCE AUTHORS Baker,K.P., Chen,J., Desnoyers,L., Goddard,A., Godowski,P.J., Gurney,A.L., Pan,J., Smith,V., Watanabe,C.K., Wood,W.I. and Zhang,Z. TITLE Secreted and transmembrane polypeptides and nucleic acids encoding the same JOURNAL Patent: WO 0168848-A 355 20-SEP-2001; Genentech, Inc. (US) FEATURES Location/Qualifiers 1. 2121 /organism="Homo sapiens" /mol_type="unassigned DNA" /db_xref="taxon:9606"	Alignment Scores: Pred. No.: Pred. No.: Score: Score: Score: Score: Similarity: 100.00% Conservative: Conservative: 0 Gaps: 0 Gaps: 0
0 0 0 0		Alignment Scores: Pred. No.: Pred. No.: Pred. No.: Score: 1357.00 Matches: 261 Score: 100.00\$ Mismatches: 0 Best Local Similarity: 100.00\$ Mismatches: 0 Gaps: 0 US-10-063-731-118 (1-261) x AX092386 (1-2121) QY 1 MetSerThrThrThrCysGlnValValAlaPheLeuLeuSerIleLeuGlyLeuAlaGly Db 90 ATGTCCACCACCACAGGGGGGGTTCCTCTTTTTTTTTTT	Qy 41 ThrSerValPheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe 60 Db 210 ACCTCCGTGTTCCAGTACGAGGGCTCTGGAGGTGCGTGAGGCTACAGGCTTC 269 Qy 61 ThrGluCy8ArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg 80 Db 270 ACCGAATGCAGGCCCTATTTCACCATCCTGGGACTTCCAGCCATGCTGCAGGCAG

Fri Sep

g

ઠ

셤

 δ ದ್ದ 8

8

g

8

ठ g ò 쉱 ದ್ದ

ð

ò g qq

ठे

à

```
2121 bp mRNA linear PRI 03-OCT-2003 clone DNA73734 CLDN18 (UNQ778) mRNA, complete cds.
                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                   629
                                                                                                                                                                                                                                                                                               200
                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                    100
                                                                                                                                                                                             120
                                                                                                                                                                                                                     140
                                                                                                                                                                                                                                  509
                                                                                                                                                                                                                                              160
                                                                              149
                                                                                                      209
                                                                                                                              269
                                                                                                                                                        329
                                                                                          40
                                                                                                                   9
                                                                                                                                           80
                                                                                                                                                                                                                                                                                              ThrGluCysArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                   2121
261
0
0
0
          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                      (1-2121)
                                                       US-10-063-731-118 (1-261) x AX697257
                                                                                                                                                                                                                                                                                                                                                                                                                                                          GI:37182080
           9.37e-126
1357.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                       AY358479
Homo sapiens o
AY358479
AY358479.1 G
                       Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                   261
                                                                                                                                                                                                                                                                                                                                                                                                               872
                                                                                                                                                                                                                                                                                                                                                                                                  Val
                                                                                                                                                                                                                                                                                                                                                                                                                GTG
      Scores
                                                                                                                                                                                                                                                                                                                                                                                      810
                                                                                                         150
                                                                                                                                 210
                                                                                                                                                         270
                                                                                                                                                                                  330
                                                                                                                                                                                              101
                                                                                                                                                                                                          390
                                                                                                                                                                                                                                   450
                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                            510
                                                                                                                                                                                                                                                                        191
                                                                                                                                                                                                                                                                                    570
                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                            630
                                                                                                                                                                                                                                                                                                                         201
                                                                                                                                                                                                                                                                                                                                     690
                                                                                                                                                                                                                                                                                                                                                 221
                                                                                                                                                                                                                                                                                                                                                              750
                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                   261
                                                                                90
                                                                                                                                                                                                                       121
                                                                                           21
                                                                                                                     41
                                                                                                                                             61
                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 7
AY358479
LOCUS
DEFINITION
ACCESSION
VERSION
      Alignment Sopred. No.:
                                                                                                                                                                                                                  중 음
                                                                                                                                                                                                                                            장염
                                                                                                                                                                                                                                                                    8 6 8 6
                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                  성
음
상
                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                          ठ
                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                   ठ
                                                                                                     qq
                                                                                                                            g
                                                                                                                                                      d
                                                                                                                                                                     ठ
                                                                                                                                                                              d
                                                                                                                                                                                          8
                                                                                                                                                                                                        g
                                                                            ద
                                                                                                                                        ⋧
                                                                   ठ
                                                                                          ð
                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                         Etrara, N., Stewart, T.A., Williams, P.M., Baker, K.P., Desnoyers, L., Eaton, D.L., Gao, W.Q., Pan, J., Botstein, D., Fong, S., Goddard, A., Godowski, P.J., Gurney, A.L., Smith, V., Tumas, D., Wood, W.I., Grimaldi, C.J., Hillan, K.J., Paoni, N.F., Roy, M.A. and Watanabe, C.K. Secreted and transmembrane polypeptides and nucleic acids encoding the same

I. Patent: WO 0078961-A 325 28-DEC-2000;

Genentech Inc. (US)

Location/Qualifiers

I. .2121

/organism="Homo sapiens"
//mol_type="unassigned DNA"
//db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                             02-APR-2003
                                                                                           140
                                                                                                        509
                                                                                                                    160
                                                                                                                                                                                               220
                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                260
                                                                                                                                 569
                                                                                                                                             180
                                                                                                                                                          629
                                                                                                                                                                      200
                                                                                                                                                                                  689
                                                                                                                                                                                                          749
                                           100
                                                                   120
                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                           LybproglyglyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLysIle
                   IleArgIleGlySerMetGluAspSerAlaLyBAlaAsnMetThrLeuThr
                                                                                                                                                                                                                                                                                                              PAT
                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                              DNA
                                                                                                                                                                                                                                                                                                                   from Patent
                                                                                                                                                                                                                                                                                                             AX697257
Sequence 325 :
AX697257
AX697257.1 G
                                                                                                                                                                              GCTGGAGGC
Alagiygiy
                                                                                                                                                                                                                                                                                     872
                                                                                                                                                                                                                                                                        261 Val 261
                                                                                                                                                                                                                                                                                     GTG
                                                                                                                                                                                                                                    750
                                                                                                                                                                                                           069
                                                                                                                                                                                                                        221
                                                                                                                                                                                                                                                                                     870
                                                                                                                                                                      181
                                                                                                                                                                                  630
                                                                                                                                                                                               201
                                                                                                                                                                                                                                                                                               RESULT 6
AX697257
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
source
                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
```

```
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AF349452.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Val
                                                                                                                   101
              81
                                                                                                                                                                  390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       750
                                                             330
                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 261
                                                                                                                                                                                                                                                                                                                            141
                                                                                                                                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 8
AF349452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
                                                                                                                                                        d
                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                               à
                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                        Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostom;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 2121)

S Clark,H.F. Gurney,A.L., Abaya,E., Baker,K., Baldwin,D., Brush,J., Chen,J., Chow,B., Chui,C., Crowley,C., Currell,B., Deuel,B., Dowd,P., Eaton,D., Foster,J., Grimaldi,C., Gu,Q., Hass,P.E., Heldens,S., Huang,A., Kim,H.S., Klimowski,L., Jin,Y., Johnson,S., Lee,J., Lewis,L., Liao,D., Mark,M., Robbie,E., Sanchez,C., Schoenfeld,J., Seshagiri,S., Simmons,L., Singh,J., Smith,Y., Stinson,J., Vagts,A., Vandlen,R., Watanabe,C., Wieand,D., Woods,K., Xie,M.H., Yansura,D., Yi,S., Yu,G., Yuan,J., Zhang,M., Zhang,Z., Goddard,A., Wood,W.I. and Godowski,P.

The Secreted Protein Discovery Initiative (SPDI), a Large-Scale Effort to Identify Novel Human Secreted and Transmembrane Proteins: A Bioinformatics Assessment Genome Res. 13 (10), 2265-2270 (2003)

Li Caston Control Control
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /codon_start=1
/codon_start=1
/product="CLDN18"
/protein_id="AAQ88843.1"
/db_xref="GI:37182081"
/db_xref="GI:37182081"
/translation="MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVF
/translation="MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVF
/translation="MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVF
/translation="MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVF
/translation="MSTTTCQVVAFLLSILGLAGCIAATGMNSTGMSGIANSCVRQSKFTFGAMSCVAGGIATGMSGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATGMGGIATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ThrGluCysArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              hrThrThrCysGlnValValAlaPheLeuLeuSerIleLeuGlyLeuAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGCCACCGGGATGGACATGTGGAGCACCCAGGACCTGTACGACAACCCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  aAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2121
261
0
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="DNA73734"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (1-2121)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .2121
/locus tag="UNQ778"
90. .875
/locus tag="UNQ778"
/note="PRO1572"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 261) x AY358479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9.37e-126
1357.00
100.00%
100.00%
  FLI_CDNA.
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCATCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGTCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cysileal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-063-731-118 (1-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MetSerT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ⋩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     තු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QQ
```

```
mRNA linear PRI 18-OCT-2001 complete cds, alternatively
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    749
100
                                                                        120
                                                                                                                                                                                   509
                                                                                                                                                                                                                                                                                                                                                                                                         689
                                                                                                                                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                      160
                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                     200
                                                                                                                                                                                                                                                          569
                                                                                                                                                                                                                                                                                                                                   629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of Metabolism, National Cancer, Bethesda, MD 20892, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 796)
Niimi, T., Nagashima, K., Ward, J.M., Minoo, P., Zimonjic, D.B.,
Popescu, N.C. and Kimura, S.
claudin-18, a novel downstream target gene for the T/EBP/NKX2.1
homeodomain transcription factor, encodes lung- and
stomach-specific isoforms through alternative splicing
Mol. Cell. Biol. 21 (21), 7380-7390 (2001)
11585919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Euteleostomi;
                  GCCCTGATGATGCTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCCATCTTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SerGlyIleMetPhelleValSerGlyLeuCysAlalleAlaGlyValSerValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AlaLeuMetIleValGlyIleValLeuGlyAlaIleGlyLeuLeuValSerIlePheAla
                                                                                                                                                                      450 TCCGGGATCATGTTCATTGTCTCAGGTCTTTGTGCAATTGCTGGAGTGTCTGTGTTTTGCC
                                                                                                                                                                                                                                                                                                                     LysProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLysIle
                                                                                                                                                                                                             AsnMetLeuValThrAsnPheTrpMetSerThrAlaAsnMetTyrThrGlyMetGlyGly
                                                                                                                                                                                                                                                AlaGlyGlyLeuThrLeuIleGlyGlyValMetMetCysIleAlaCysArgGlyLeuAla
                                                                                                                                                                                                                                                                                                                                                                                         ProGluGluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr
                                                                                                                                                                                                                                                                                            MetValGlnThrValGlnThrArgTyrThrPheGlyAlaAlaLeuPheValGlyTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10.".795
/note="alternatively spliced"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 (bases 1 to 796)
Niimi,T. and Kimura,S.
Direct Submission
Submitted (15-FEB-2001) Laboratory of
Institute, NIH, 9000 Rockville Pike,
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens claudin-18A2.1 mRNA, spliced.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .796
/organism="Homo sapien
/mol_type="mRNA"
/db_xref="taxon:9606"
10. .795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GI:16224168
```

```
Sugano, S.

Numblished

L Unpublished

E (bases 1 to 3344)

Sugano, S. and Suzuki, Y.

Direct Submission

Submitted (08-JUL-2002) Sumio Sugano, Institute of Medical Science, University of Tokyo, Laboratory of Genome Structure, Human Genome Center; Shirokane-dai, 4-6-1, Minato-ku, Tokyo 108-8639, Japan (E-mail:flcdnadims.u-tokyo.ac.jp, Tel:81-3-5449-5286,

Fax:81-3-5449-5416)

NEDO human cDNA sequencing project supported by Ministry of Economy, Trade and Industry of Japan; cDNA full insert sequencing: Research Association for Biotechnology (RAB); cDNA library construction and 5'-end one pass sequencing: Institute of Medical Science, University of Tokyo, Laboratory of Genome Structure, Human Genome Center; 3'-end one pass sequencing: RAB; clone selection for full insert sequencing: RAB and Helix Research Institute.
                                                                                       3344 bp mRNA linear PRI 12-SEP-2003 CDNA FLJ25608 fis, clone STM00359, highly similar to
                                                                                                                                                                                                               Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                          Abe, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                114 ATCATTGCTGCCACCTGCATGGACCACTGGAGCACCCCAAGACTTGTACAACAACCCCGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CysileAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                               Ninomiya, K., Wagatsuma, M., Kanda, K., Kondo, H., Yokoi, T., Kodaira, H., Furuya, T., Takahashi, M., Kikkawa, E., Omura, Y., Kamihara, K., Katsuta, N., Sato, K., Tanikawa, M., Yamazaki, M., Suzuki, Y., Hata, H., Nakagawa, K., Mizuno, S., Morinaga, M., Kawamura, M., Sugiyama, T., Irie, R., Otsuki, T., Sato, H., Nishikawa, T., Sugiyama, A., Kawakami, B., Nagai, K., Isogai, T.
                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutel
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3344
240
120
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /tissue type="stomach mucosa"
/clone lib="STM"
/note="cloning vector: pME18SFL3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative:
Mismatches:
Indels:
                                                                                                                                                                     insert sequence)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      type="stomach mucosa"
lib="STM"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1. .3344
/organism="Homo sapiens"
/wol type="wRNA"
/db_xref="taxon:9606"
/clone="STM00359"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (1-3344)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps:
                                                                                                                                    AK098474
AK098474.1 GI:21758493
oligo capping; fis (full i
Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-063-731-118 (1-261) x AK098474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3.3e-116
1264.00
96.55$
91.95$
93.15$
                                                                                                          Homo sapiens
CLAUDIN-18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score:
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                       AK098474
                               GTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21
                             790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                         DEFINITION
                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                           RESULT 9
AK098474
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
/codon_start=1
/product="claudin-18A2.1"
/product="claudin-18A2.1"
/protein_id="AAL15637.1"
/db_xref="GI:16224169"
/translation="MAVTACQGLGFVVSLIGIAGIIAATCMDQWSTQDLYNNPVTAVF
NYQGLWRSCVRESSGFTECRGYFTLLGLPAMLQAVRALMIVGIVLGAIGLLVSIFALK
CIRIGSMEDSAKANMTLTSGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGG
MVQTVQTRYTFGAALFVGWVAGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSV
AYKPGGFKASTGFGSNTKNKKIYDGGARTEDEVQSYPSKHDYV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    789
                                                                                                                                                                                                                                                                                                                                                                                                                   129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            80
                                                                                                                                                                                                                                                                                                                                                                                     40
                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                       69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     670 AAGCCTGGAGGCTTCAAGGCCAGCACTGGCTTTGGGTCCAACAACAAAAACAAGAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            610 CCAGAAGAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLysIle
                                                                                                                                                                                                                                                                                                                       PheglnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ThrGluCysArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11eValGly1leValLeuGlyAlaIleGlyLeuLeuValSerIlePheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        250 GCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCCATCTTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           141 AsnMetLeuValThrAsnPheTrpMetSerThrAlaAsnMetTyrThrGlyMetGlyGly
                                                                                                                                                                                                                                                                                                                                                                                    21 CysIleAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerTyrHisAlaSerGlyHisSerValAlaTy
                                                                                                                                                                                    796
240
12
9
0
                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                Gaps:
                                                                                                                                                                                                                                                                                              (1-796)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProGluGluThrAsnTyrLysAlaVal
                                                                                                                                                                                                                                                                                              x AF349452
                                                                                                                                                                                   5.24e-117
1264.00
96.55%
91.95%
                                                                                                                                                                                                                                                                                              US-10-063-731-118 (1-261)
                                                                                                                                                                                                                                                                                                                                                                                                                                               41 ThrSerValP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tyraspglyg
||||||||||
Tacgarggag
                                                                                                                                                                                                     Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LysProGly
                                                                                                                                                                                                                                                                                                                                                                                                              70 ATCATTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AlaLeuMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  310 CTGAAATGC
                                                                                                                                                                       Alignment Scores Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81
```

品 农 品 农

දු පු

ð

g

õ

8 8

6 6 6 6 6

음 상 음

8 8 8 8

233

/mol_type="mRNA" /db_xref="taxon:10090" 68862 /codon_start=1 /product="Claudin-18" /protein_id="AAF26447.1" /db_xref="GI:6715516" /translation="MATTTCQVVGLLLSLIGLAGCIAATGMDMWSTQDLYDNPVTAVF QYEGLWRSCVQQSSGFTECRPYFTILGLPAMLQAVRALMIVGIVLGTLAJR CIRIGSMDDSAKARMTLTSGILFIISGICAIIGVSVFANMLYTNFWMSTANMYSGMGG MGGMVQTVQTRYTFGAALFVGWVAGGLTLIGGVMMCIACRGLTPDDSNFKAVSYHASG QNVAYRPGGFKASTGFGSNTRNKKIYDGGARTEDDEQSHPTKYDYV"	Alignment Scores: Pred. No.: Score: Score: Percent Similarity: Best Local Similarity: Query Match: DB: US-10-063-731-118 (1-261) x AF221068 (1-2786)	68	Oy 21 CysileAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVa 	Oy 41 ThrSerValPheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPh :::	Qy 61 ThrGluCysArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg	Qy 81 AlaLeuMetileValGlylleValLeuGlyAlaileGlyLeuLeuValSerilePheAla 	Oy 101 LeuLysCysileArgileGlySerMetGluAspSerAlaLysAlaAsnMetThrLeuThr	Qy 141 AsnMetLeuValThrAsnPheTrpMetSerThrAlaAsnMetTyrThrGly	Qy 178 GlyTrpValAlaGlyGlyLeuThrLeuIleGlyGlyValMetMetCysIle 	Qy 198 GlyLeuAlaProGluGluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSer :::::: :::	218 ValAlaTyrLysProGlyGlyPh 	Qy 238 LysLysIleTyrAspGlyGlyAlaArgThrGluAspGluValGlnSerTyrProSerLys
61 ThrGluCyBArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg 80		20	201 ProglugluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr 220 	221 LysProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLysIle 240 	241 TyrAspGlyGlyAlaArgThrGluAspGluValGlnSerTyrProSerLysHisAspTyr 260 	261 Val 261 834 GTG 836	RESULT 10 AF221068 LOCUS AF221068 AF221068 DEFINITION Mus musculus Claudin-18 mRNA, complete cds. ACCESSION AF221068 AF221068.1 GI:6715515	Mus musculus (house mouse) Mus musculus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae E 1 (bases 1 to 2786) S Niimi,T., Nagashima,K., Ward,J.M., Minoo,P., Zimonj Popescu,N.C. and Kimura,S.	TITLE claudin-18, a novel downstream target gene for the T/EBP/NKX2.1 howeodomain transcription factor, encodes lung- and stomach-specific isoforms through alternative splicing JOURNAL MOI. Cell. Biol. 21 (21), 7380-7390 (2001)	PUBMED 11585919 REFERENCE 2 (bases 1 to 2786) AUTHORS Niimi,T. and Kimura,S. TITLE Direct Submission	JOURNAL Submitted (04-JAN-2000) Laboratory of Metabolism, DBS, National Cancer Institute, NIH, 9000 Rockville Pike, Bethesda, MD 20892, USA FEATURES Source 12786 /organism="Mine migcyllus"	/organism="musculus"

σ

Φ

120

421

361

301

140

481 157 177 601 197 661 213 721

```
linear ROD 18-OCT-2001 cds, alternatively
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 849)
Niimi,T., Nagashima,K., Ward,J.M., Minoo,P., Zimonjic,D.B., Popescu,N.C. and Kimura,S. claudin-18, a novel downstream target gene for the T/EBP/NKX2.1 homeodomain transcription factor, encodes lung- and stomach-specific isoforms through alternative splicing Mol. Cell. Biol. 21 (21), 7380-7390 (2001)
                             ACCGAGTGCCGGCCATACTTCACCATCCTGGGCCTTCCAGCCATGCTGCAAGCTGTACGA
                                                                       AlaLeuMetIleValGlyIleValLeuGlyAlaIleGlyLeuLeuValSerIlePheAla
                                                                                      SerGlyIleMetPhelleValSerGlyLeuCysAlaIleAlaGlyValSerValPheAla
                                                                                                                                                                                                                                               GlyTrpValAlaGlyGlyLeuThrLeuIleGlyGlyValMetMetCysIleAlaCysArg
                                                                                                                                                                                                                                                                                                                                                                                                                      -----TyrLysAlaValSerTyrHisAla
                                                                                                                                                                                                                                                                                                                                                                                                                                        AsnThrLysAsnLysLysIleTyrAspGlyGlyAlaArgThrGluAspGluValGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MetGlyGlyMetValGlnThrValGlnThrArgTyrThrPheGlyAlaAlaLeuPheVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           National C
20892, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 (bases 1 to 849)
Niimi,T. and Kimura,S.
Direct Submission
Submitted (15-FEB-2001) Laboratory of Metabolism,
Institute, NIH, 9000 Rockville Pike, Bethesda, MD
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AF349451

Mus musculus claudin-18A2.1 mRNA, complete spliced.
AF349451

AF349451.1 GI:16224165
                                                                                                                                                                                                                                                                                                                                                                                                                        GlyLeuAlaProGluGluThrAsn----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TyrProSerLysHisAspTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                :::|||:::||||::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11585919
                                             242
                                                                                                                                                                                                                                                                            482
                                                                                                                                                                                                                                                                                                                                   542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 254
                                                                                                    302
                                                                                                                               101
                                                                                                                                                          362
                                                                                                                                                                                         121
                                                                                                                                                                                                                  422
                                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                        158
                                                                                                                                                                                                                                                                                                                                                               178
                                                                                                                                                                                                                                                                                                                                                                                            602
                                                                                                                                                                                                                                                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                                                                                                                                                    662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            842
                                                                        81
                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 12
AF349451
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PUBMED
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                            8 6
                                                                                                                                                    d
                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                       g &
                                                                                                                                                                                                                                                                                                                             ď
                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                  ద
                                                                                                                      ð
                                                                                                                                                                                      ð
                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ਨੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                       ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                            tted (15-FEB-2001) Laboratory of Metabolism, National Cancer tute, NIH, 9000 Rockville Pike, Betheada, MD 20892, USA Location/Qualifiers
1. 1409
/organism="Mus musculus"
/mol_type="mRNA"
/db_xref="taxon:10090"
/note="isolated from mixed background of 129/Sv, C57BL/6, and Black Swiss mice"
/db_xref="alternatively spliced"
/codon_start=1
/product="alternatively spliced"
/codon_start=1
/product="alternatively spliced"
/codon_start=1
/protein_id="AAL15635.1"
/db_xref="G1:16224163"
/translation="MATTTCQVVGLLLSLLGLAGCIAATGMDMWSTQDLYDNPVTAVF
QYEGLWRSCVQSSGFTECRPYFTILGLPAMLQAVRALMIVGIVLGVIGILVSIFALK
CIRIGSMDDSAKAKMTLTSGILFIISGICAIIGYSVFANMLVTNFWMSTANMYSGMGG
MGGMVQTVQTRYTFGAALFVGWVAGGLTLIGGVWMCIACRGLTPDDSK"
                                                                                                                                mRNA linear ROD 18-OCT-2001 complete cds, alternatively
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                             Mus musculus (house mouse)

Mus musculus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus

1 (bases 1 to 1409)

S Niimi,T., Nagashima,K., Ward,J.M., Minoo,P., Zimonjic,D.B.,

Popescu,N.C. and Kimura,S.

claudin-18, a novel downstream target gene for the T/EBP/NKK2.1

homeodomain transcription factor, encodes lung- and

stomach-specific isoforms through alternative splicing

Mol. Cell. Biol. 21 (21), 7380-7390 (2001)

E 21470315

D 11585919

E 2 (bases 1 to 1409)

S Niimi,T. and Kimura,S.

Direct Submission

L Submitted (15-FEB-2001) Laboratory of Metabolism, National Cancer Institute, NIH, 9000 Rockville Pike, Bethesda, MD 20892, USA
                                                                                                                                                                                                                                                  Craniata, Vertebrata, Euteleostomi,
Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CyslleAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      122 TGCATAGCCGCCACTGGGATGGACATGTGGAGCACTCAAGACCTGTATGACAACCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1409
231
21
9
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                1409 bp
claudin-18A1.2 mRNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (1-1409)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-063-731-118 (1-261) x AF349450
                                                                                                                                                                                          GI:16224162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.83e-112
1217.50
94.03*
86.19*
89.72*
                                                                         859
                                           258 HisAspTyrVal 261
                                                                         GTG
                                                                                                                              AF349450
Mus musculus
spliced.
AF349450
AF349450.1 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                           848 TATGACTATC
|||||||||
788 AAGAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21
                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                             JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
                                                                                                   RESULT 11
AF349450
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                        d
                                             ð
```

781

Fri

```
Mus musculus (house mouse)

Mus musculus

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

Miimi, T., Nagashima, K., Ward, J.M., Minoo, P., Zimonjic, D.B.,

Popescu, N.C. and Kimura, S.

claudin-18, a novel downstream target gene for the T/EBP/NKX2.1

homeodomain transcription factor, encodes lung- and
stomach-specific isoforms through alternative splicing

Mol. Cell. Biol. 21 (21), 7380-7390 (2001)

E 21470315

D 11585919

E 2 (bases 1 to 861)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /codon_start=1
/product="claudin-18A2.2"
/product="claudin-18A2.2"
/protein_id="AAL15638.1"
/db_xref="GI:16224172"
/translation="MSVTACQGLGFVVSLIGFAGIIAATCMDQWSTQDLYNNPVTAVF
NYQGLWRSCVRESSGFTECRGYFTLLGLPAMLQAVRALMIVGIVLGVIGILVSIFALK
CIRIGSMDDSAKAKWTLTSGILFIISGICAIIGVSVFANMLVTNFWMSTANMYSGMGG
MGGWVQTVQTRYTFGAALFVGWVAGGLTLIGGVMMCIACRGLTPDDSK"
                                                                                                                                                                                                               mRNA linear ROD 18-OCT-2001 complete cds, alternatively
                   773
                                                  257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .861
/organism="Mus musculus"
/mol_type="mRNA"
/db_xref="taxon:10090"
/note="isolated from mixed background of 129/Sv, C57BL/6, and Black Swiss mice"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         National Cancer
20892, USA
CysilealaalaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MetSerThrThrThrCysGlnValValAlaPheLeuLeuSerIleLeuGlyLeuAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 (bases 1 to 861)
Niimi,T. and Kimura,S.
Direct Submission
Submitted (15-FEB-2001) Laboratory of Metabolism,
Institute, NIH, 9000 Rockville Pike, Bethesda, MD
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    861
217
27
17
17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      54. .680
/note="alternatively spliced"
                                                                                                                                                                                                               861 bp
claudin-18A2.2 mRNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (1-861)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-063-731-118 (1-261) x AF349453
                                                                                                                                                                                                                                                                             GI:16224171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2.54e-105
1147.50
91.04%
80.97%
84.56%
                                                                                                                  261
                                                                                                                                               845
                                                                                                                                  :::||||||||
TATGACTATGTG
                                                                                                                  HisAspTyrVal
                                                                                                                                                                                                            AF349453
Mus musculus c
spliced.
AF349453
AF349453.1 GI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                               834
                   714
                                                                                                                  258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match:
DB:
                                                                                                                                                                                              AF349453
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                             ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                            KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                    ઠ
                                                                                g
                                                                                                                  à
                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ठ
                                                                                                          / Codon_start=1
/product="claudin-18A2.1"
/product="claudin-18A2.1"
/protein_id="AAL15636.1"
/db_xref="GI:16224166"
/translation="MSVTACQGLGFVVSLIGFAGIIAATCMDQWSTQDLYNNPVTAVF
NYQGLWRSCVRESSGFTECRGYFTLLGLPAMLQAVRALMIVGIVLGVIGILVSIFALK
CIRIGSMDDSAKAKMTLTSGILFIISGICAIIGVSVFANMLVTNFWMSTANMYSGMGG
MGGMVQTVQTRYTFGAALFVGWVAGGLTLIGGVWMCIACRGLTPDDSNFKAVSYHASG
QNVAYRPGGFKASTGFGSNTRNKKIYDGGARTEDDEQSHPTKYDYV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     00₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              237
                                                 C57BL/6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41 ThrSerValPheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ThrGluCysArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              leMetPhelleValSerGlyLeuCysAlaileAlaGlyValSerValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MetSerThrThrTysGlnValValAlaPheLeuLeuSerIleLeuGlyLeuAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21 CysileAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AlaLeuMetIleValGlyIleValLeuGlyAlaIleGlyLeuLeuValSerIlePheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetGlyGlyMetValGlnThrValGlnThrArgTyrThrPheGlyAlaAlaLeuPheVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   534 ATGGGTGGCATGGTGCAGACCGTTCAGACCAGGTACACCTTCGGTGCAGCTCTGTTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyTrpValAlaGlyGlyLeuThrLeuIleGlyGlyValMetMetCysIleAlaCysArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           218 ValAlaTyrLysProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             174 ACCGCTGTATTCAACTACCAAGGCCTATGGCGTTCATGCGTCCGAGAGAGCTCTGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCGAGGCTACTTCACCCTGTTGGGGTTGCCAGCCATGCTGCAAGCTGTACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ysileArgileGlySerMetGluAspSerAlaLysAlaAsnMetThrLeuThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGAAGTGCATTCGCATTGGTAGCATGGATGACTCTGCCAAGGCCCAAGATGACTCTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  euValThrAsnPheTrpMetSerThrAlaAsnMetTyrThr-----Gly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     594 GCCTGGGTTGCTGGAGGCCTCACCCTGATTGGGGGGAGTGATGATGTGCATCGCCTGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyLeuAlaProGluGluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCCTGACCACCAGATGACAGCAACTTCAAAAGCTGTGTCTTACCATGCCTCTGGCCAAAAT
                                                  129/Sv,
                                                  οĘ
                                                 background
                                                                                                                                                                                                                                                                                                           849
218
27
16
3
                                                                                                                                                                                                                                                                                                                                          Conservative:
Mismatches:
Indels:
               /mol_type="mRNA"
/db_xref="taxon:10090"
/note="isolated from mixed back and Black Swiss mice"
54. 848
/note="alternatively spliced"
                                                                                                                                                                                                                                                                                                            Length:
Matches:
  organism="Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                          (1-849)
                                                                                                                                                                                                                                                                                                                                                                                                                           261) x AF349451
                                                                                                                                                                                                                                                                                                          3.97e-107
1165.50
92.80%
82.58%
85.89%
                                                                                                                                                                                                                                                                                                                       Score:
Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SerGlyI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               114 ATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuLysC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141 AsnMetL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   234 ACCGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-063-731-118 (1
                                                                                                                                                                                                                                                                                           Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                              CDS
```

ò

 $^{\circ}$

ਠੋ g

ద

8

Š

ð g දු පු

qq

õ d 8 8

ें

g

 δ පු à

õ

```
,C12N15/00,C12N5/00,A61K37/02
zsig28 polypeptide CC n =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeulysCysileArgileGlySerMetGluAspSerAlaLysAlaAsnMetThrLeuThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 YINAARIGYATHMGNATHGGNWSNATGGARGAYWSNGCNAARGCNAAYATGACNYTNACN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerGlyIleMetPheIleValSerGlyLeuCysAlaIleAlaGlyValSerValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ThrGluCysArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AsnMetLeuValThrAsnPheTrpMetSerThrAlaAsnMetTyrThrGlyMetGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProGluGluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGWSNACNACNACNTGYCARGTNGTNGCNTTYYTNYTNWSNATHYTNGGNYTNGCNGGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAYATGYTNGTNACNAAYTTYTGGATGWSNACNGCNAAYATGTAYACNGGNATGGGNGGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MetValGlnThrValGlnThrArgTyrThrPheGlyAlaAlaLeuPheValGlyTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cl2N1/21, Cl2N5/10, Cl2P21/02, Cl2P21/08, Cl2O1/02
                                                                                                                                                                                                                                                                                   783
211
0
50
0
                                                                                                Key Iocation/Qualifiers misc_feature (1). (783).
Location/Qualifiers 1. .783
/organism="synthetic construct"/mol_type="genomic DNA"/db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
            PC C12N1/19,C12N1/21,C12N5/10,C12P27,C12Q1/68,G01N33/15,PC G01N33/50,G01N33/53,G01N33/57,CJ Degenerate nucleotide sequence of z8A,T,C or G Location/QualifieFT misc_feature (1) (783).
                                                                 of
                                                                                                                                                                                                                                                                                                                                                                                                              (1-783)
                                                                                                                                                                                                                                                                                                                                                                                                              US-10-063-731-118 (1-261) x BD237993
                                                                                                                                                                                                                                                                                  1,26e-102
1120.00
80.84%
80.84%
82.54%
                                                                                                                                                                                                                                                              Alignment Scores:
Pred. No.:
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
C12N1/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           161
                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       음 상 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ♂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PAT 17-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    197
                                                                                                                                                           100
                                                                                                                                                                                            353
                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                       473
                                                                                                                                                                                                                                                                                                                                                                          157
                                                                                                                                                                                                                                                                                                                                                                                                                                                177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   773
                                                  233
                                                                                                                      293
                                                                                                                                                                                                                                                                 413
                                                                                                                                                                                                                                                                                                                                                                                                             533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         833
                                                                                     80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           '09, A61K38/00, A61K39/395, A61K39/395, A61P1/04, A61P1/14,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  50, A61P31/04, A61P31/10, A61P35/00, C07K14/47, C07K16/18,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerGlyHisSerValAlaTyrLysProGlyGlyPheLysAlaSerThrGlyPheGlySer
                the Control of the Co
                                    174 ACCGCTGTATTCAACTACCAAGGGCTATGGCGTTCATGCGTCCGAGAGAGGCTCTGGCTTC
                                                                                   ArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                        AlaLeuMetileValGlyileValLeuGlyAlaileGlyLeuLeuValSerilePheAla
                                                                                                                                                                                                                              lleArglleGlySerMetGluAspSerAlaLysAlaAsnMetThrLeuThr
                                                                                                                                                                                                                                                                                                    SerGlyIleMetPheIleValSerGlyLeuCysAlaIleAlaGlyValSerValPheAla
                                                                                                                                                                                                                                                                                                                      /althrAsnPheTrpMetSerThrAlaAsnMetTyrThr-----Gly
                                                                                                                                                                                                                                                                                                                                                                                             AACATGCTGGTGACCAACTTCTGGATGTCCACAGCTAACATGTACAGGGGGCGGC

        MetValGlnThrValGlnThrArgTyrThrPheGlyAlaAlaLeuPheVal

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyTrpValAlaGlyGlyLeuThrLeuIleGlyGlyValMetMetCysIleAlaCysArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ||||||||
GGCCTGACACCAGATGACAGCAAGTGAGTCCTCCCCTTCAAAGCTGTGTCTTACCATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTGGCCAAAATGTTGCCTACAGGCCTGGAGGCTTTAAGGCCCAGCACTGGCTTTGGGTCC
                                                                                                                                                                                                                                                ATGGGTGGCATGGTGCAGACCGTTCAGACCAGGTACACCTTCGGTGCAGCTCTGTTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----TyrLysAlaValSerTyrHisAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         --2002
--1999 JP 2000570197
--1998 US 09/154444
SHEPPARD, KEVIN P FOLEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ďq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JysHisAspTyrVal 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               O. and Foley, K.P.
ypeptide ZSIG28
2002524103-A 2 06-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BD237993
Gastric polypeptide ZSIG28.
BD237993
BD237993.1 GI:33047763
JP 2002524103-A/2.
synthetic construct
artificial sequences.
1 (bases 1 to 783)
Sheppard,P.O. and Foley,K.P. Gastric polypeptide ZSIG28
Patent: JP 2002524103-A/2
BD O6-AUG-2002
PF 14-SEP-1999 JP 200057019
PR 16-SEP-1999 US 09/15/
PR 16-SEP-1999 US 09/15/
PC C12N15/09,A61K38/00,A61P
PC A61P3/08,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyLeuAlaProGluGluThrAsn-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeulysCysI
||||||||||
CTGAAGTGCA
                                                                                                                                                                                                                                                                                                                                                                       AsnMetLeu
                                                                                                        ACCGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                              MetGlyGly
                ThrServal
                                                                                                                      234
                                                                                                                                                                                            294
                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                                 354
                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                       414
                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                                          474
                                                                                                                                                                                                                                                                                                                                                                                                                                                 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           834
                                                                                                                                                           81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       234
                                                                                     61
                  41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 14
BD237993
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
```

160

480 180 540 220

99

720

200 900

140 420

100 300 120

120

40 9

180

80

Fri

```
/organism="Homo sapien:
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6177081"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rcccccarcarcircarrercrc-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-063-731-118 (1-261) x BC063845
                                                                                                                                                                                                                                                                                                                                7.64e-101
1107.50
84.67%
84.67%
81.61%
                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  553
                                                                                                                                                                                                                                                                                                                                          No.:
                                                                                                                                                                                                                                                                                                            Alignment
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                  Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)

Homo sapiens

Bukarota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi, Bukarota; Butheria; Primates; Catarrhini; Hominidae; Homo.

Bukarota; Butheria; Primates; Catarrhini; Hominidae; Homo.

I (Dases 1 to 2040)

Strausberg,R.L., Feingold,E.A., Grouse,L.H., Derge,J.G.,
Klausner,R.D., Collins,F.S., Wagner,L., Shemmen,C.M., Schuler,G.D.,
Altschul,S.F., Zeeberg,B., Buetow,K.H., Schaefer,C.F., Bhat,N.K.,
Hopkins,R.F., Jordan,H., Moore,T., Max,S.I., Wang,J., Hsieh,F.,
Diatchenko,L., Marusina,K., Farmer,A.A., Rubin,G.M., Hong,L.,
Stapleton,M., Soares,M.B., Bonaldo,M.F., Casavant,T.L.,
Scheetz,T.E., Brownstein,M.J., Usdin,T.B., Toshiyukis.,
Scheetz,T.E., Brownstein,M.J., Usdin,T.B., Toshiyukis.,

K.J., Mullahy,S.J., Bosak,S.A., McEwan,P.J.,
Morley,K.C., Hale,S., Gancia,A.M., Gay,L.J., Hulyk,S.W.,
Villalon,D.K., Muzny,D.M., Sodergren,E.J., Lu,K., Gibbs,R.A.,
Fahey,J., Helton,E., Ketteman,M., Madan,A., Rodrigues,S.,
Sandhez,A., Whiting,M., Madan,A., Young,A.C., Shevchenko,Y.,
Boutfard,G.G., Blakesley,R.W., Touchman,J.W., Green,E.D.,
Dickson,M.C., Rodriguez,A.C., Grimwood,J., Schmutz,J., Myers,R.M.,
Butterfield,Y.S., Krzywinski,M.I., Skalska,U., Smailus,D.E.,
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences

Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (202)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Strausberg, R.

Strausberg, R.

Strausberg, R.

Direct Submission

Submitted (08-DEC-2003) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA

NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk

Email: cgapbs-r@mail.nih.gov
Contact: MGC help desk

Contact: MGC negretation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

Steven Jones, Jennifer Asano, Ian Bosdet, Yaron Butterfield,

Susanna Chan, Readman Chiu, Chris Fjell, Erin Garland, Ran Guin,

Letticia Helao, Martin Krzywinski, Reta Kutsche, Oliver Lee, Soo

Sen Lee, Victor Ling, Carrie Mathewson, Candice McLeavy, Steven

Ness, Pawan Pandoh, Anna-Liisa Prabhu, Parvaneh Saeedi, Jacqueline

Schein, Duane Smailus, Michael Smith, Lorraine Spence, Jeff Stott,

Michael Thorne, Miranada Tsai, Natasja van den Bosch, Jill Vardy,

George Yang, Scott Zuyderduyn, Marco Marra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 141 Row: a Column: 13
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 7705960.
Location/Qualifiers
                                                                                                                                                                                                                                                           PRI 12-DEC-2003
                                                780
    ТұтАврGlyGlyAlaArgThrGluAspGluValGlnSerTyrProSerLysHisAspTyr
                              TAYGAYGGNGGNGCNMGNACNGARGAYGARGTNCARWSNTAYCCNWSNAARCAYGAYTAY
                                                                                                                                                                                                                                                       BC063845 2040 bp mRNA linear
Homo sapiens cDNA clone IMAGE:6177081, partial cds
BC063845
BC063845.1 GI:39795429
                                                                                                Val 261
                                                                                                                                                   783
                                                                                                                                  __K
                                                                                                    261
241
                                                721
                                                                                                                                                     781
                                                                                                                                                                                                     RESULT 15
BC063845
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
```

FEATURES

```
120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SerGlyIleMetPheIleValSerGlyLeuCysAlaIleAlaGlyValSerValPheAla 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  672
                                                                                                                                                                                                                                                                                                                                                                                 130
                                                                                                                                                                                                                                                                                                                                                                                                                                          190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             492
                                                                                                                                                                                                                                                                                                                                                        40
                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                        70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ThrGluCy8ArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LygProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLyelle
                                                                                                                                                                                                                                                                                                                                                                            71 TGCATCGCGCCCACCGGGATGGACATGTGGAGCACCCCAGGACCTGTACGACAACCCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AlaLeuMetIleValGlyIleValLeuGlyAlaIleGlyLeuLeuValSerIlePheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProGluGluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCTCCGTGTTCCAGTACGAAGGCTCTGGAGGAGCTGCGTGAGGCAGAGTTCAGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AsnMetLeuValThrAsnPheTrpMetSerThrAlaAsnMetTyrThrGlyMetGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----AGGTACACATTTGGTGCGGCTCTGTTCGTGGGCTGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MetSerThrThrThrCysGlnValValAlaPheLeuLeuSerIleLeuGlyLeuAlaGly
                                                                                                                                                                                                                                                                                                                                                       CyslleAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                                                              ThrSerValPheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MetValGlnThrValGlnThrArgTyrThrPheGlyAlaAlaLeuPheValGlyTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AlaGlyGlyLeuThrLeuIleGlyGlyValMetMetCysIleAlaCysArgGlyLeuAla
                                                     dorsal
                                                     System,
                                                  /tissue_type="Peripheral Nervous System,
ganglion"
/clone_lib="Lupski_dorsal_root_ganglion'
/lab_host="DH10B"
/note="Vector: pCMV-SPORT6"
                                                                                                                                                                 2040
221
0
1
40
                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
sapiens
                                                                                                                                                                                                                                                                   (1-2040)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
```

දු පු

261 Val 261 ||| 673 GTG 675

Search completed: September 2, 2004, 21:14:00 Job time: 2837 secs

Human sec CDNA enco Novel hum Human sec Human sec

ACA71157 ACC87685 ACC87071 ACD0424 ACA69575 ACA96420 ACC89527 ACC89527 ACC89527 ACC89527 ACC89527 ACC93360 ACC93360 ACC15581 ACC15581 ACC15581 ACC15581 ACC15581 ACC15581

Acc89527 Aca98318 Aca93360 Aca93560 Acd15353 Acc15581 Aca72948 Aca72948 Aca92127 Aca89552 Aca89552 Aca73562

Human Human

Human

Aca75677 Aca71157 Acc87685 Acc87071 Acd04244 Aca69575 Aca90420

Human

AAF92116 ABS74436 ABX78705 ACA75677

hum

Novel Human

sec sec cDNA enco

Human Human

sec sec

Human Human

Aca66711 Aca91222 Acd81599 Acf20286 Acf19672 Acd21960 Acf13125 Acd25228 Acf00277

Human Human

ACA91222 ACD81599 ACF20286 ACF19672 ACF19672

ACF13125 ACD25228

ACA73562 ACA05877 ACA66711

Human Novel

Novel

Acd04858 Acd18319

ACA72334 ACD04858 ACD18319

ALIGNMENTS

ВР

protein"

Human

Н

```
Human; stomach; zsig28 protein; chromosome 3q22.1-3q22.2; gene therapy; claudin; oligodendrocyte-specific protein; OSP; apoptosis; RVP.1; rat androgen-withdrawal apoptosis protein; growth factor receptor; cell-cell signalling molecule; cytostatic; antibacterial; food poisoning; Botulism; diarrhoea; inflammation; cramping; cancer; gastric ulcer; diagnosis; prevention; treatment; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Mature zsig28"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
70. .855
/*tag= a
/product= "zsig28 pro
                                                                                                                                                                                                                                                                                                                                                                                                    Human stomach protein zsig28 DNA
                                                                                                                                                                                                                                                                                                                                                     AAZ52249 standard; DNA; 982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag= c
/product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         139. . 852
 *tag=
WO200015659-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                    18-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mat peptide
 AAZ52249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ношо
                                                                                                                                                                                                                                                                                                                                    RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Key
 Command line parameters:
-MODEL=frame+ p2n.model -DEV=xlh
-Q=/cgn2_1/USPTO spool/US10063731/runat_01092004_155041_18736/app_query.fasta_1.455
-DB=N Geneseq_29Jan04 -QFMT=fastap -SUFFIX=rng -MINMATCH=0.1 -LOOPCL=0
-LOOPEXT=0 -UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi
-LIST=45 -DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER=US10063731_@CGN_1 1_352_@runat_01092004_155041_18736 -NCPU=6 -ICPU=3
-NO MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Aaz52249 Human 8to
Aac74775 Human ORF
Aaa09120 Clone 322
Aaa09116 Clone 322
Abk81817 DNA repre
Aaf54432 DNA encod
Aaa37114 Human PRO
Aas46102 Human DNA
                                                      9; Search time 327 Seconds (without alignments) 3390.764 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                        ......DGGARTEDEVQSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
         5.1.6
Compugen Ltd
                                       frame_plus_p2n model
                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                      seqs, 2124099041 residues
                                                       2004, 20:04:09
                                                                                                                                                                                                                            Match 0%
Match 100%
first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAZ52249
AAC74775
AAA09120
AAA09116
ABK81817
AAF54432
AAA37114
                                                                                      US-10-063-731-118
1357
1 MSTTTCQVVAFLLSILGLAG.
                                                                                                                                , Xgapext
, Ygapext
, Fgapext
, Delext
                                                                                                                                                                                                                                                                                                                                                                  1: genesequigos:*
2: genesequigos:*
3: genesequigos:*
4: genesequigos:*
5: genesequigos:*
7: genesequigos:*
7: genesequigos:*
8: genesequigos:*
9: genesequigos:*
                                                                                                                                                                                                                                                                                                                                                           4 Geneseq_29Jan04:*
L: geneseqn1980s:*
2: geneseqn1990s:*
9: geneseqn2000s:*
1: geneseqn2001as:*
         GenCore
(c) 1993
                                       using
                                                                                                                                                                                                             2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   uuuuno 4 m 4
                                                        7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 982
1505
1530
1530
1530
1869
2108
2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                       nucleic search,
                                                                                                                               10.0
10.0
6.0
6.0
                Copyright
                                                        September
                                                                                                                      BLOSUM62
Xgapop 10
Ygapop 10
Fgapop 6
                                                                                                                                                                                                                          Post-processing: Minimum
Maximum
Listing
                                                                                                                                                                      3373863
                                                                                                                                                                                                     Minimum DB seq length:
Maximum DB seq length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  *
Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1000.0
1000.0
1000.0
1000.0
1000.0
                                                                                                score:
                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1357
1357
1357
1357
1357
1357
1357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score
                                         OM protein
                                                                                                        Sequence:
                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                            Database
                                                                                       Title:
Perfect
                                                        Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12645978
```

us-10-063-731-118.rng

```
The present sequence is a stomach protein zsig28 encoding DNA located at 3422.1-3422. region of human chromosome 3 and isolated from human lung library. The zsig28 protein shows homology to a diverse family of receptor proteins containing e.g. human claudin 1 and 2, human and murine oligodedadrocyte-specific protein (OSP) and rat androgen-withdrawal apoptosis protein RVP-1. It is thought to be a cell-cell signalling molecule, a growth factor receptor or extracellular matrix associated protein with growth factor hormone activity and may be involved in an apoptotic cellular pathway. The protein may act as an anti-microbial agent and may bind toxins produced by bacteria which cause food poisoning, Botulism, severe diarrhoea, inflammation and cramping. zsig28 c.g. in cancer cells. They are also useful for stimulating cell growth or differentiation. Altered levels of zsig28 protein in a test sample such as saliva, serum, sweat or biopsy can be monitored as an indication of digestive function, gastric ulcer or cancer. zsig28 candication can be used as a differentiation marker to determine the stage coff tumour or cell maturity, particularly in epithelial cells.

Polynucleotides encoding zsig28 can be used in gene therapy applications
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                                                                                                                                               New isolated polynucleotide encoding a stomach zsig28 polypeptide used for diagnosis, prevention and treatment of stomach disorders caused by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            130 TGCATCGCGGCCACCGGGATGGACATGTGGAGCACCCCAGGACCTGTACGACACCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ThrservalPheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCCATCTTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetSerThrThrCysGlnValValAlaPheLeuLeuSerIleLeuGlyLeuAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AlaLeuMetIleValGlyIleValLeuGlyAlaIleGlyLeuLeuValSerIlePheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGTCCACCACCACATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGGGCTGGCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CysileAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ysArgProTyrPheThr11eLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCTCCGTGTTCCAGTACGAAGGCTCTGGAGGAGCTGCGTGAGGCAGAGTTCAGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           982
261
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 271 G; 218 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (1-982)
                                                                                                                                                                                                                                             Claim 2; Page 111-113; 121pp; English.
                                                                                                                                                                                               for diagnosis, prevention and treat
bacteria, gastric ulcers or cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    261) x AAZ52249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ပ
                 99WO-US021023
                                           98US-00154444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3.4e-149
1357.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 218 A; 275
                                                                          ZYMOGENETICS INC
                                                                                                        Foley KP;
                                                                                                                                    WPI; 2000-271379/23
P-PSDB; AAY70675.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score:
Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Threlucy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuLysC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-063-731-118 (1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 982
                                           16-SEP-1998;
                                                                                                       б,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alignment Scores:
Pred. No.:
                 14-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       310
                                                                                                        Sheppard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41
                                                                          (ZYMO)
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
```

```
Human; open reading frame; ORFX; detection; cytostatic; hepatotropic;

wulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective;

wulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective;

muticonvulsant; osteopathic; acquilant; vasotropic; antidiabetic;

mimunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;

mypotensive; dermatological; immunosuppressive; antidiabetic;

mativiral; antibacterial; antifungal; antirheumatic; antithyroid;

matianaemic; gene therapy; cancer; proliferative disorder; hypertension;

meurodegenerative disorder; osteoarthritis; graft vs host disease;

cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;

cardiovascular disease; systemic lupus erythematosus; infection;

severe combined immunodeficiency; malaria; autoimmune disorder; asthma;

allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;

bone damage; cartilage damage; antiinflammatory disease; coagulation;

thrombosis; contraceptive; ss.
                                                                                 160
                                                      489
                                                                                                                                         180
                                                                                                                                                                    609
                                                                                                                                                                                                200
                                                                                                                                                                                                                            699
                                                                                                                                                                                                                                                       220
                                                                                                                                                                                                                                                                                   729
                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                           789
                                                                                                                                                                                                                                                                                                                                                                          260
                                                                                                                                                                                                                                                                                                                                                                                                    849
                         AlaGlyGlyLeuThrLeuIleGlyGlyValMetMetCyBIleAlaCysArgGlyLeuAla
                                                                                                                                                                                                                                                                                                                                                                       370 CTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAAACATGACACTGACC
                                                                                                  GCTGGAGGCCTCACACTAATTGGGGGGTGTGATGTGTCCATCGCCTGCCGGGGCCTGGCA
                                                                                                                                                                                                                                                                        CCAGAAGAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCCTAC
                                                                                                                                                                                                                                                                                                                LysProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLysIle
                                                                                 AsnMetLeuValThrAsnPheTrpMetSerThrAlaAsnMetTyrThrGlyMetGlyGly
                                                                                                                                                                                                                                                                                                                                            AAGCCTGGAGGCTTCAAGGCCAGCACTGGCTTTGGGTCCAACAACAAAAACAAGAATA
                                                                                                                                                                                                                                                       ProGluGluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human ORFX ORF330 polynucleotide sequence SEQ ID NO:659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAC74775 standard; cDNA; 1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-0127607P.
99US-0127636P.
99US-0127728P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-MAR-2000; 2000WO-US008621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-00540763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                            852
                                                                                                                                                                                                                                                                                                                                                                                                                                261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200058473-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-MAR-1999;
02-APR-1999;
05-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-OCT-2000
                                                      430
                                                                                                                                                                     550
                                                                                                                                                                                                                            610
                                                                                                                                                                                                                                                                                   670
                                                                                                                                                                                                                                                                                                                                           730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAC74775;
                                                                                 141
                                                                                                                                          161
                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                261
                          121
                                                                                                                                                                                                                                                        201
                                                                                                                                                                                                                                                                                                                 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                            850
                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                            g
                                                                                                                                                                   셤
                                                                                                                                                                                                ð
                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                 ठ
                                                                                                                                          ਠੋ
                                                                                                                                                                                                                                                       ठ
                                                                                                                                                                                                                                                                                                                ₹
                                                                                                                                                                                                                                                                                                                                                                         ଧ
                                                                                                                                                                                                                                                                                                                                                                                                                                ਨੋ
```

(CURA-) CURAGEN CORP

```
AAC7446 to AAC77606 encode the proteins given in AAB40237 to AAB43397, which represent the human ORFX open reading frames 1 to 3161. The ORFX sequences have activities such as: cytostatic; hepatotropic; vulnerary; antipartic; antiparkinsonian; nootropic; neuroprotective; osteopathic; anticonvulsant; antiarthritic; immunosuppressant; immunostimulant; cardiant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; dermatological; immunosuppressive; antithyroid; and antianaemic. The antiviral; antifungal; antirheumatic; antithyroid; and antianaemic. The sequences can be used for determining the presence of or predisposition to, or preventing or treating pathological conditions associated with an ORFX-associated disorder. The nucleic acids can be used to express ORFX proteins in gene therapy vectors. The proteins and nucleic acids may be used to treat cancers, proliferative disorders, neurodegenerative disorders, osteoarthritis, graft vs host disease, cardiovascular disease, diabetes mellitus, hypertension, hypothyroidism, cholesterol ester storage, systemic lupus erythematosus, severe combined immunodeficiency (SIDD), AIDS, viral, bacterial or fungal infection, malaria, autoimmune disorders, asthma, allergies, aplastic anaemia, burns, wounds, bone and cartilage damage, nocturnal haemoglobinuria, antiinflammatory disease; to enhance coagulation; to inhibit thrombosis; and as a contraceptive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ThrThrCysGlnValValAlaPheLeuLeuSerIleLeuGlyLeuAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCACATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGGCTGGCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CysileAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ×
                                                                                                        frame
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  337 G; 403 T; 0 U; 0 Other;
                                                                                                     s and peptides derived from open reading g e.g. cancers, proliferative disorders, disorders and cardiovascular disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1505
261
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (1-1505)
                                                                                                                                                                           5507pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1) x AAC74775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  367 A; 398 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6.34e-149
1357.00
100.00%
100.00%
3
                Ξ
                                                                                                 Novel nucleic acids
useful for treating
neurodegenerative di
                Leach
                                               WPI; 2000-602362/57
P-PSDB; AAB40566.
                                                                                                                                                                        Claim 5; Page 771;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGTCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       130 ACCTCCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-063-731-118 (1-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MetSerThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1505
                Shimkets RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match:
DB:
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
```

```
249
                                                                          100
                                                                                                     309
                                                                                                                              120
                                                                                                                                                                               MetPhelleValSerGlyLeuCysAlaIleAlaGlyValSerValPheAla 140
                                                                                                                                                                                                          429
189
                        80
                                                                         IleValGlyIleValLeuGlyAlaIleGlyLeuLeuValSerIlePheAla
                       ThrGluCysArgProTyrPheThr1leLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                      GCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCCATCTTTGCC
                                                                                                                             LeulysCysIleArgIleGlySerMetGluAspSerAlaLysAlaAsnMetThrLeuThr
                                                                                                                                              ATCCGCATTGGCAGCATGGAGCTCTGCCAAAGCCAACATGACATGACC
                                                                                                                                                                                               TCCGGGATCATGTTCATTGTCTTTGTGCAATTGCTGGAGTGTCTTTTGCC
                                                                                                                                                                               SerGly11eM
                                                                                                                                             CTGAAATGC
                                                                           AlaLeuMet
                                                 190
                                                                                                  250
                                                                                                                             101
                                                                                                                                                     310
                        61
                                                                          81
                                                                                                                                                                                121
                                                                                                                                                                                                        370
                                               ď
                                                                          ठ
                                                                                                                           ठे
                       ठ
```

```
240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      clone 3223867 encodes a polypeptide that has homology to claudin-1, which is an integral membrane protein found in tight junctions. The sequences are useful for treatment of diseases such as cancer, immune disorders, autoimmune disease, acquired immune deficiency syndrome (AIDS), transplant rejection, allergy, infection by a pathological agent or organism, inflammatory disorders, arthritis, a haematopoietic disorder, a skin disorder, atherosclerosis, restenosis, a neurological disease,
      489
                                                                                200
                                                                                                         609
                                                                                                                                  220
                                                                                                                                                                                                           729
                                                                                                                                                                                                                                    260
                                                                                                                                                                                                                                                            789
                                             ATGGTGCAGACTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTCGTGGGCTGGGTC
                                                                                AlaGlyGlyLeuThrLeuIleGlyGlyValMetMetCysIleAlaCysArgGlyLeuAla
                                                                                             LysProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLysIle
                                                                                                                                                                                                   AACATGCTGCTGACTAACTTCTGGATGTCCACAGCTAACATGTACACGGGCATGGG
                              MetValGlnThrValGlnThrArgTyrThrPheGlyAlaAlaLeuPheValGlyTrpVal
                                                                                                                                   ProGluGluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr
                                                                                                                                                CCAGAAGAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                claudin-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Clone 3224646; claudin; homologue; cytostatic; anti-HIV; immunosuppressive; antiallergic; antiinfective; antiinflammatory; antiarthritic; antiarteriosclerotic; vasotropic; neuroprotective; nootropic; dermatological; tranquilizer; vulnerary; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          diseases including
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acids encoding polypeptides with syncline-like, cytokine-like activity, useful for treating diseases in Alzheimer's and atherosclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 12; Fig 3B; 118pp; English
                                                                                                                                                                                                                                                                                                                                                   1120/c
AAA09120 standard; cDNA; 1530
                                                                                                                                                                                                                                                                                                                                                                                                                                        Clone 3224646 cDNA complement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US023294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0103195P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-00412231
                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CURA-) CURAGEN CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-303741/26
                                                                                                                                                                                                                                                                                      261
                                                                                                                                                                                                                                                                                                               792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200020447-A2
                                                                                                                                                                                                                                                                                     Val
                                                                                                                                                                                                                                                                                                               GIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Shimkets RA;
                                                                                                                                                                                                                                                                                                                                                                                                                10-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-APR-2000.
        430
                                                          490
                                                                                 181
                                                                                                          550
                                                                                                                                                           610
                                                                                                                                                                                    221
                                                                                                                                                                                                           670
                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                             730
                                                                                                                                                                                                                                                                                      261
                                                                                                                                                                                                                                                                                                              790
                                                                                                                                                                                                                                                                                                                                                                                         AAA09120;
                                161
                                                                                                                                   201
                                                                                                                                                                                                                                                                                                                                       셤
                               8 5
                                                                              ठे
                                                                                                     g
                                                                                                                                  ठे
                                                                                                                                                                            충
                                                                                                                                                                                                      g
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                              ð
```

Fri

CDNA, encodes claudin homologue

3224646

(first

10-AUG-2000

AAA09116;

```
ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठ
                                                                                                                                     1171
                                                                                                                                                                                                       1051
                                                                                                                                                                      1111
                                                                                                                                                                                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                          00"
                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                             140
                                                                                                                                                                                                                                                                                                                                                              .60
                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                        991
                                                                                                                                                                                                                                                                          931
                                                                                                                                                                                                                                                                                                           871
                                                                                                                                                                                                                                                                                                                                              811
                                                                                                                                                                                                                                                                                                                                                                               751
                                                                                                                                                                                                                                                                                                                                                                                                                691
                                                                                                                                                                                                                                                                                                                                                                                                                                                 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     451
                                                                                                                                                      40
                                                                                                                                                                                       9
                                                                                                                                                                                                                         80
 disorders
                                                                                                                                                                                                                                                                                                                                      870 TCCGGGATCATGTTCATTGTCTCAGGTCTTTGTGCAATTGCTGGAGTGTCTGTGTTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221 LysProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLysIle
                                                                                                                     1 MetSerThrThrCysGlnValValNalAlaPheLeuLeuSerIleLeuGlyLeuAlaGly
                                                                                                                                                     21 CysileAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                      ThrservalPheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                                                                                                                                                    'sArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                   SerGlyIleMetPheIleValSerGlyLeuCysAlaIleAlaGlyValSerValPheAla
                                                                                                                                                                                                                                                                                                                                                            141 AsnMetLeuValThrAsnPheTrpMetSerThrAlaAsnMetTyrThrGlyMetGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                        lyGlyAlaArgThrGluAspGluValGlnSerTyrProSerLysHisAspTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             510 TACGATGGAGGTGCCCGCACAGAGGACGAGGTACAATCTTATCCTTCCAAGCACGACTAT
                                                                                                                               1230 AIGICCACCACCACCATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGGGTTGCCGGC
                                                                                                                                                                                                1110 ACCTCCGTGTTCCAGTACGAAGGCTCTGGAGGAGCTGCGTGAGGCAGAGTTCAGGCTTC
                                                                                                                                                                                                                                                                    990 GCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCCATCTTTGCC
                                                                                                                                                                                                                                                                                           yslleArglleGlySerMetGluAspSerAlaLysAlaAsnMetThrLeuThr
                                                                                                                                                                                                                                                                                                     930 CTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAACATGACACTGACC
                                                                                                                                                                                                                                                                                                                                                                         InThrValGinThrArgTyrThrPheGlyAlaAlaLeuPheValGlyTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                 eAlaCysArgGlyLeuAla
                                                                                                                                                               81 AlaLeuMetIleValGlyIleValLeuGlyAlaIleGlyLeuLeuValSerIlePheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                 690 GCTGGAGGCCTCACAATTGGGGGGTGTGATGTGCATCGCCTGCCGGGGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 luThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ccadaagaaaccaactacaagccgrrrcrrarcargccrcaggccacagrgrrgccrac
spinal cord injury and skeletal
                 U; 0 Other;
                                          1530
261
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                lyLeuThrLeuIleGlyGlyValMetMetCysIl
                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                  0
                H
                 G; 366
                                                                                                    (1-1530)
                 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
AAA09116
ID AAA09116 Btandard; cDNA; 1530 BP.
                ິບ
                                                                                                    261) x AAA09120
                 381
 trauma,
                                         6.5e-149
1357.00
100.00%
100.00%
                 Ä
                 375
Alzheimer's disease,
                              Alignment Scores:
Pred. No.:
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                       ThrGluCy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProGluG]
                BP
                                                                                                                                                                                                                                                                                                                                                                                               MetValG
                                                                                                                                                                                                                                                                                                                                                                                                                                181 AlaglyG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 TyrAspG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    448
                                                                                                                                                                                                                                                                                           101 LeuLysC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      261 Val 261
                                                                                                                                                                                                                                                                                                                                                                            810 AACATGC
                                                                                                    US-10-063-731-118 (1
                Sequence 1530
                                                                                                                                                                                       41
                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                               191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     450
                                                                                                                                              ර් පි
                                                                                                                                                                                                                                                                                                                                                                         유 상 유
                                                                                                                  ð
                                                                                                                                                                                ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                           g
```

```
420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Clone 3223867 encodes a polypeptide that has homology to claudin-1, which is an integral membrane protein found in tight junctions. The sequences are useful for treatment of diseases such as cancer, immune disorders, autoimmune disease, acquired immune deficiency syndrome (AIDS), transplant rejection, allergy, infection by a pathological agent or organism, inflammatory disorders, arthritis, a haematopoietic disorder, skin disorder, atherosclerosis, restenosis, a neurological disease, Alzheimer's disease, trauma, spinal cord injury and skeletal disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acids encoding polypeptides with syncline-like, claudin-like or cytokine-like activity, useful for treating diseases including cancer, Alzheimer's and atherosclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CyslleAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCATCGCGGCCACCGGGATGGACATGTGGAGCACCCCAGGACCTGTACGACAACCCCGTC
                                   Clone 3224646; claudin; homologue; cytostatic; anti-HIV; immunosuppressive; antiallergic; antiinfective; antiinflammatory; antiarthritic; antiarteriosclerotic; vasotropic; neuroprotective; nootropic; dermatological; tranquilizer; vulnerary; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1530
261
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           G; 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (1-1530)
                                                                                                                                                                                Location/Qualifiers
301. .1086
/*tag= a
301. .369
/*tag= b
370. .1083
/*tag= c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-063-731-118 (1-261) x AAA09116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Fig 3A; 118pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0103195P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1530 BP; 366 A; 408
                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US023294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6.5e-149
1357.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (CURA-) CURAGEN CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2000-303741/26.
P-PSDB; AAY92235.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                   WO200020447-A2
                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-OCT-1998;
05-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                    06-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Shimkets RA;
                                                                                                                                                                                                                                                                                                                                                                                        13-APR-2000
                                                                                                                                                                                                                                                sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
Clone
                                                                                                                                             Ношо
```

Ø

```
100
                  480
                                                                                              009
                                                                                                                 120
                                                                                                                                    9
                                                                                                                                                       140
                                                                                                                                                                          720
                                                                                                                                                                                            160
                                                                                                                                                                                                               780
                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                        200
                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                              220
                                     80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 therapy; vaccine; lung cancer; cancer staging; diagnosis; imaging lung cancer; metastases;
                                                                        421 ACCTCCGTGTTCCAGTACGAAGGGCTCTGGAGGACTGCGTGAGGCAGAGTTCAGGCTTC
                                                                                                               lleArg1leGlySerMetGluAspSerAlaLysAlaAsnMetThrLeuThr
                                                                                                                             601 CTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCCAACATGACACTGACC
                                                                                                                                                                                                                                                                     201 ProglugluThrAsnTyrLysAlaValSerTyrHiBAlaSerGlyHisSerValAlaTyr
                                                                                                                                                                                                                                                                                                                      221 LysProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLyslle
                                                                                                                                                                                                                                                                                                                                                                                       241 TyrAspGlyGlyAlaArgThrGluAspGluValGlnSerTyrProSerLy8HisAspTyr
PheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                                                                                                                                                                                                                                                                                            TrpVal
                                                                                                                                                                                                                                                                                                                                                                                                      rThrPheGlyAlaAlaLeuPheVal
                                                                                                                                                                                                                               161 MetValGlnThrValGlnThrArgTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA representing lung specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-AUG-2000; 2000US-0228378P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-AUG-2001; 2001WO-US026684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (DIAD-) DIADEXUS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lung specific gene; cancer monitoring;
                                                                                                             101 LeuLysCys
                                                                                                                                                                                                                                                                                                                                                                                                         1021 TACGATGGA
41 ThrSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                             261 Val 261
|||
1081 GTG 1083
                                               481 ACCGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABK81817 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200218576-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABK81817;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 5
ABK81817
ID ABK8
XX
AC ABK8
XX
DT 13-A
XX
DE DNA
XX
KW Cano
KW Gene
XX
                                                                                        음
장
음
                                                                       8
                                                                                                                                                   R &
                                                                                                                                                                                     õ
                                                                                                                                                                                                       g
                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                  gg
                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                       ò
```

```
The invention describes a new lung specific gene and it's variants. The lung specific gene proteins and genes are useful in gene therapy or as a vaccine for treating lung cancer. Lung specific genes are also useful for staging, monitoring, diagnosing or imaging lung cancer, as well as for measuring metastases of lung cancer. This sequence represents a lung specific gene described in the invention
                                                                                                                                                                                                                                                                                                                                                                                       202
                                                                                                                                                                                                                                                                                                                                                                                                                                  262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     622
                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                   40
                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                     80
                                                specific genes and their encoded proteins, useful in gene or as a vaccine for treating lung cancer, as well as for metastases of lung cancer, or staging, monitoring, diagnosing
                                                                                                                                                                                                                                                                                                                        WetSerThrThrCysGlnValValValAlaPheLeuSerIleLeuGlyLeuAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGTCCACCACACTGCCAAGTGGTGGCGTTCCTCCTGTCCACCATCCTGGGGGCTGGCCGGC
                                                                                                                                                                                                                                                                                                                                                                 CysileAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                              TGCATCGCGGCCACCGGGATGGACATGTGGAGCACCCCAGGACCTGTACGACAACCCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                           ThrSerValPheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                        ACCTCCGTGTTCCAGTACGAAGGGCTCTGGAGGAGCTGCGTGAGGCAGAGTTCAGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ThrGluCysArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AsnMetLeuValThrAsnPheTrpMetSerThrAlaAsnMetTyrThrGlyMetGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MetValGlnThrValGlnThrArgTyrThrPheGlyAlaAlaLeuPheValGlyTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaGlyGlyLeuThrLeuIleGlyGlyValMetMetCysIleAlaCysArgGlyLeuAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProGluGluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeulysCysIleArgIleGlySerMetGluAspSerAlaLysAlaAsnMetThrLeuThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGAAATGCATCGCATTGGCAGCATGGAGCTCTGCCAAAGCCAACATGACACTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Other
                                                                                                                                                                                                                              1869
261
0
0
0
                                                                                                                                                                                                 0
                                                                                                                                                                                                ü;
                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                0
                                                                                                                                                                                                ij
                                                                                                                                                                                                515
                                                                                                                                                                                                                                                                                                     (1-1869)
           Ħ
                                                                                                                                                                                                 :
Ö
                                                                                                    Claim 1; Page 160-161; 206pp; English
           Recipon
                                                                                                                                                                                                412
                                                                                                                                                                                                ပ်
                                                                                                                                                                                                                                                                                                    US-10-063-731-118 (1-261) x ABK81817
                                                                                                                                                                                                                            8.71e-149
1357.00
100.00%
100.00%
                                                                                                                                                                                                Sequence 1869 BP; 485 A; 457
         ×
                                                                               imaging lung cancer
          æ,
                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                    Scores
                                                            therapy or
measuring or
or imaging
                                                                                                                                                                                                                                                                                                                          Н
                                                                                                                                                                                                                                                                                                                                                                                      143
                                                                                                                                                                                                                                                                                                                                              83
                                                                                                                                                                                                                                                                                                                                                                   21
                                                                                                                                                                                                                                                                                                                                                                                                            41
                                                                                                                                                                                                                                                                                                                                                                                                                                203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    563
                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  201
         ŝ
                                                                                                                                                                                                                                                                      Query Match:
DB:
                                                                                                                                                                                                                   Alignment S
Pred. No.:
        Chen
                                                                                                                                                                                                                                        Score:
d
                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                ਨੇ
                                                                                                                                                                                                                                                                                                                                                                               Ωp
                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ⋩
```

Fri

241

261 863

ठे

```
LysProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLysIle
                                                                                                                            ThrGluCysArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                    ProGluGluThrAsnTyzLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    690 CCAGAAGAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  210 ACCICCGIGIICCAGIACGAAGGGCICIGGAGGAGCIGCGIGAGGCAGAGIICAGGCIIC
                                                                                                                                                                                                                                                                                                                   LeuLysCysIleArgIleGlySerMetGluAspSerAlaLysAlaAsnMetThrLeuThr
                                                                                                                                                                                                                                                                                                                               ThrserValPheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                MetSerThrThrCysGlnValValAlaPheLeuLeuSerIleLeuGlyLeuAlaGly
Conservative:
Mismatches:
Indels:
Gaps:
                                                          (1-2108)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP
                                                           US-10-063-731-118 (1-261) x AAF54432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2121
 100.00%
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard;
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Val 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-AUG-2000
                                                                                                                                                                                                                                                                                                330
                                                                                                                                                                                                                                                                                                                                             390
                                                                                                                                                                                                                                                                                                                                                                                            450
                                                                                                                                                                                                                                                                                                                                                                                                                                         510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 261
                                                                                                                                                                                                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                              41
                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                        81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
AAA3711
ID AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             XEXEXEX
                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                     qq
                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                        ठ
                                                                                    ð
                                                                                                                                  ਨੇ
                                                                                                                                                                              ਨੋ
                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fong S;
Hillan KJ;
Watanabe CK;
                                                                         260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           designated PRO,
e mapping and gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to secreted and transmembrane proteins. These proteins and the DNA encoding them may be used as hybridization probes, in chromosome and gene mapping and in the generation of antisense RNA and DNA. They may also be used used to generate either transgenic animals or knockout animals which are in turn useful for development and screening of therapeutically useful reagents. The nuclacids may also be used in gene therapy
   683 CCAGAAGAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCCTAC
                                                                      221 LysproGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLysIle
                                           Ferrara N,
Gurney AL,
A, Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           s and nucleic acids chromosome and gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         U; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Baker KP, Botstein D, Desnoyers L, Eaton DL, F
Gao W, Goddard A, Godowski PJ, Grimaldi CJ, Gl
Pan J, Paoni NF, Roy MA, Smith V, Stewart TA,
Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
Ö
                                                                                                                                                                                                                                                                invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Secreted and transmembrane proteins useful as hybridization probes, in ctherapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; 487
                                                                                                                                                                                                                                                                                                                                                                                                     23-JUN-1999; 99US-0141037P.
20-JUL-1999; 99US-014569BP.
26-JUL-1999; 99US-014569BP.
01-SEP-1999; 99WO-US020111.
29-OCT-1999; 99WO-US028313.
02-DEC-1999; 99WO-US028551.
16-DEC-1999; 99WO-US03095.
05-JAN-2000; 2000WO-US000219.
                                                                                                                                                                                           ВP
                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           564 A; 514
                                                                                                                                                                                           2108
                                                                                                                                                                                                                                                                                                                                                                                  0WO-US004342
                                                                                                                                                                                                                                                               DNA encoding protein of the
                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 2; Fig 181; 787pp;
                                                                                                                                                                                            DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-071395/08
                                                                                                                                                                                          AAF54432 standard;
                                                                                         803 TACGATG
                                                                                                                     Val 261
                                                                                                                                                                                                                                                                                      Secreted; transm
                                                                                                                                                                                                                                                                                                                                                                                 18-FEB-2000; 200
                                                                                                                                           GTG 865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2108
                                                                                                                                                                                                                                                                                                                                     WO200078961-A1
```

Unidentified

02-APR-2001 AAF54432;

RESULT 6 AAF54432 ID AAF5

28-DEC-2000

160

569

329 100 389 120 449 140 509

269 80

9

209

40

180 629 200 689 220 260

NO:325

ΩI SEQ

(UNQ778) cDNA sequence

Human PRO1572

Length: Matches:

Alignment Scores: Pred. No.: Score:

```
New mammalian DNA sequences encoding transmembrane, PRO polypeptides, useful for screening of potential molecule inhibitors of the relevant receptor/ligand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Smith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2; Fig 185; 773pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gurney AL,
98US-0102568P.
98US-0103258P.
98US-01033144P.
98US-0103314P.
98US-0103318P.
98US-0103328P.
98US-0103395P.
98US-0103395P.
98US-0103395P.
98US-0103395P.
98US-0103395P.
98US-0103395P.
98US-0104987P.
98US-0105694P.
98US-0105694P.
98US-0105694P.
98US-0105694P.
98US-0105694P.
98US-0105694P.
98US-0105694P.
98US-0106032P.
98US-0106032P.
98US-0106033P.
98US-0106033P.
98US-010633P.
98US-010633P.
98US-0106982P.
98US-010693P.
98US-010693P.
98US-010693P.
98US-010693P.
98US-010693P.
98US-010693P.
98US-010693P.
98US-010693P.
98US-010693P.
98US-010898P.
98US-010899P.
98US-0108867P.
98US-0108867P.
98US-0108867P.
98US-0108865P.
98US-0108865P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-237871/20.
P-PSDB; AAY99432.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Goddard
02-OCT-1998;
06-OCT-1998;
07-OCT-1998;
07-OCT-1998;
07-OCT-1998;
07-OCT-1998;
07-OCT-1998;
07-OCT-1998;
07-OCT-1998;
07-OCT-1998;
08-OCT-1998;
08-OCT-1998;
20-OCT-1998;
20-OCT-1998;
20-OCT-1998;
21-OCT-1998;
22-OCT-1998;
22-OCT-1998;
23-OCT-1998;
24-OCT-1998;
26-OCT-1998;
26-OCT-1998;
27-OCT-1998;
28-OCT-1998;
28-NOV-1998;
28-NOV-1998;
28-NOV-1998;
28-NOV-1998;
28-NOV-1998;
28-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ĸ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Baker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim
 88
diagnosis;
screening;
 ide; membrane bound protein; receptor; etion; immunoadhesion; pharmaceutical;
                                                                                                                          98US-0098749P.
98US-0098750P.
98US-0098803P.
98US-0098803P.
98US-009881P.
98US-0099881P.
98US-0099596P.
98US-0099598P.
98US-0099598P.
98US-0099763P.
98US-0099763P.
98US-0099763P.
98US-0099763P.
98US-0099763P.
98US-0099763P.
98US-0099763P.
98US-0099808P.
98US-0099763P.
98US-0099763P.
98US-0009763P.
98US-00097763P.
98US-00097763P.
98US-0100684P.
98US-010071P.
98US-0101477P.
98US-0101473P.
                                                                                                        D-US020111
 Human; PRO polypepi
transmembrane; sec
                                                                                                                             01-SEP-1998;

01-SEP-1998;

02-SEP-1998;

02-SEP-1998;

02-SEP-1998;

03-SEP-1998;

09-SEP-1998;

09-SEP-1998;

10-SEP-1998;

10-SEP-1998;

10-SEP-1998;

10-SEP-1998;

10-SEP-1998;

10-SEP-1998;

11-SEP-1998;

11-SEP-1998;

11-SEP-1998;

12-SEP-1998;

13-SEP-1998;

14-SEP-1998;

15-SEP-1998;

17-SEP-1998;

17-SEP-1998;

17-SEP-1998;

17-SEP-1998;

17-SEP-1998;

17-SEP-1998;

18-SEP-1998;

17-SEP-1998;

17-SEP-1998;

17-SEP-1998;

17-SEP-1998;

17-SEP-1998;

18-SEP-1998;

17-SEP-1998;

18-SEP-1998;

17-SEP-1998;

18-SEP-1998;

18-SEP-1998;

18-SEP-1998;

18-SEP-1998;

18-SEP-1998;

18-SEP-1998;

23-SEP-1998;

23-SEP-1998;

23-SEP-1998;

24-SEP-1998;

24-SEP-1998;

25-SEP-1998;

26-SEP-1998;

27-SEP-1998;

28-SEP-1998;

28-SEP-1998;

28-SEP-1998;

29-SEP-1998;

29-SEP-1998;

29-SEP-1998;

29-SEP-1998;

20-SEP-1998;

21-SEP-1998;

22-SEP-1998;

23-SEP-1998;

23-SEP-1998;

24-SEP-1998;

24-SEP-1998;

25-SEP-1998;

26-SEP-1998;

27-SEP-1998;

28-SEP-1998;

28-SEP-1998;

29-SEP-1998;

20-SEP-1998;

20-SEP-1998;

20-SEP-1998;

20-SEP-1998;

21-SEP-1998;

21
                                   варіепв
                                                         WO200012708-
                                                                                                      01-SEP-1999;
                                                                                09-MAR-2000
                                   Homo
```

receptor or secreted peptide or small interactions.

WI;

Wood

ÇĶ,

Watanabe

Fri

 ∞

```
.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                       209
                                                                                                                                                                                                                                                                                                                                                                  269
                                                                                                                                                                                                                                                                                                                                                                                                            329
                                                                                                                                                                                                                                                                                                                                                                                                                                 1.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                      389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  809
       AAA37022 to AAA37144 encode the new isolated human transmembrane, receptor or secreted PRO polypeptides given in AAY99340 to AAY99462. The transmembrane and receptor PRO proteins can be used for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interactions. The polypeptides and nucleotide sequences encoding then have various industrial applications, including uses as pharmaceutical and diagnostic agents. AAA37145 to AAA37330 represent PCR primers and hybridisation probes used in the isolation of the PRO polypeptides from the present invention
                                                                                                                                                                                                                                                                                                 40
                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                   AlaLeuMetileValGlyIleValLeuGlyAlaileGlyLeuLeuValSerilePheAla
                                                                                                                                                                                                                                                                                                                                         ThrSerValPheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     eMetPheIleValSerGlyLeuCysAlaIleAlaGlyValSerValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGGCTTCAAGGCCAGCACTGGCTTTGGGTCCAACACCAAAAACAAGAAGATA
                                                                                                                                                                                                                                                                                                             150 TGCATCGCGGCCACCGGGATGGACATGTGGGAGCACCCCAGGACCTGTACGACAACCCCGTC
                                                                                                                                                                                                                                                                                                                                                         ACCTCCGTGTTCCAGTACGAAGGGCTCTGGAGGCGGGTGAGGCAGAGTTCAGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                     /BArgProTyrPheThrlleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        390 CTGAAATGCATCGCCATTGGCAGCATGGAGGACTCTGCCAAAGCCAACATGACACTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MetValGlnThrValGlnThrArgTyrThrPheGlyAlaAlaLeuPheValGlyTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .yLeuThrLeuIleGlyGlyValMetMetCysIleAlaCysArgGlyJeuAla
                                                                                                                                                                                                                                                                                               CysIleAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                                                    LeuLysCysIleArgIleGlySerMetGluAspSerAlaLysAlaAsnMetThrLeuThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AsnMetLeuValThrAsnPheTrpMetSerThrAlaAsnMetTyrThrGlyMetGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTGGAGGCCTCACACTAATTGGGGGTGTGATGATGTGCATCGCCTGCCGGGGCCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProGluGluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAGAAGAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCCTAC
                                                                                                                      T; 0 U; 0 Other;
                                                                                                                                                      2121
261
0
0
0
                                                                                                                                                    Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                     487 G; 549
                                                                                                                                                                                                                               (1-2121)
                                                                                                                      ပဲ
                                                                                                                                                                                                                               261) x AAA37114
                                                                                                                                                    1.05e-148
1357.00
100.00%
100.00%
100.00%
                                                                                                                     569 A; 516
                                                                                                                     Sequence 2121 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alaglyg1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGCCTGC
                                                                                                                                                                        Percent Similarity:
Best Local Similarity
Query Match:
DB:
                                                                                                                                                                                                                                               MetSerT)
                                                                                                                                                                                                                                                                                                                                                                                     ThrGluC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SerGlyI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LysProG
                                                                                                                                                                                                                              US-10-063-731-118 (1
                                                                                                                                         Alignment Scores:
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                                                210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               750
                                                                                                                                                                                                                                                                                                                                                                                                           270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     069
                                                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                                                                                                                           41
                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                      330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   四次 四次 四次 四次 四次
XUUUUU
                                                                                                                                                                                                                                                    R 公 B 公 B 公 B 公 B 公
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 6
```

```
869
                                                                                                                                                              PRO polypeptide; mammal; tumour; cancer; human; cattle; horse; sheep; ss; dog; cat; pig; goat; rabbit; tumour necrosis factor alpha; TNF-alpha; blood; chondrocyte cell; cell proliferation; cell differentiation; colon; adrenal; lung; breast; prostate; rectum; cervix; liver; genetic disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gurney AL;
810 TACGATGGAGGTGCCCGCACAGAGGACGAGGTACAATCTTATCCTTCCAAGCACGACTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Godowski PJ,
                                                                                                                                            Human DNA encoding PRO polypeptide sequence #178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Goddard A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Desnoyers L,
                                                                                ВР
                                                                                                                                                                                                                                                                                                          2000WO-US005601.
2000WS-US005841.
2000US-0187202P.
2000US-0189320P.
2000US-0189328P.
2000US-0199328P.
2000US-0191048P.
2000US-019101114P.
2000US-019101114P.
2000US-019101111P.
2000US-0196690P.
2000WO-US014941.
                                                                               standard; cDNA; 2121
                                                                                                                                                                                                                                                                                       28-FEB-2001; 2001WO-US006520
                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chen J,
                    261
                                        872
                                                                                                                                                                                                                                               WO200168848-A2
                                                                                                                                                                                                                                                                                                                   02-MAR-2000;

03-MAR-2000;

14-MAR-2000;

14-MAR-2000;

15-MAR-2000;

21-MAR-2000;

21-MAR-2000;

21-MAR-2000;

21-MAR-2000;

29-MAR-2000;

29-MAR-2000;

11-APR-2000;

11-APR-2000;

11-APR-2000;

11-APR-2000;

11-APR-2000;

11-APR-2000;

11-APR-2000;

25-APR-2000;

25-APR-2000;

25-APR-2000;

26-AUX-2000;

27-AUX-2000;

28-JUN-2000;

28-JUN-2000;

28-JUN-2000;

28-JUN-2000;

28-JUN-2000;

28-JUN-2000;
                                                                                                                                                                                                                            Homo sapiens.
                                        GIG
                    Val
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-AUG-2000;
08-NOV-2000;
01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-DEC-2000;
                                                                                                                       18-DEC-2001
                                                                                                                                                                                                                                                                    20-SEP-2001
                                                                                                                                                                                                        primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ЖР,
                                                                               AAS46102
                    261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Baker
                                                                                                                                                                                                       PCR
                                                                    AAS46102
                                                          RESULT
                                                                                          ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TyrAspGlyGlyAlaArgThrGluAspGluValGlnSerTyrProSerLysHi
```

```
Claim 2; Fig 117; 278pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-SEP-1999; 99WO-US020111.
15-SEP-1999; 99WO-US021090.
07-DEC-1999; 99US-0169495P.
09-DEC-1999; 99US-0170262P.
11-JAN-2000; 2000WS-0175481P.
18-FEB-2000; 2000WO-US004341.
22-FEB-2000; 2000WO-US004414.
01-MAR-2000; 2000WS-0187202P.
21-MAR-2000; 2000WS-0191007P.
30-MAR-2000; 2000WS-0191007P.
30-MAR-2000; 2000WS-019397P.
25-APR-2000; 2000WS-019393P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAF92116 standard; cDNA; 2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mapping;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-AUG-2000; 2000WO-US023328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Filvaroff
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; PRO protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-183260/18
P-PSDB; AAB87584.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human PRO1572 cDNA
                                                                                                                                                                                                                                                                                                                                                       Val 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200116318-A2
                                                                                                                                                                                                                                                                                                                                                                                           GTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Grimaldi CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-MAY-2001
                                                                                                                                                                                                                                          750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAF92116;
                                                       181
                                                                                           630
                                                                                                                               201
                                                                                                                                                                   069
                                                                                                                                                                                                        221
                                                                                                                                                                                                                                                                                                                                                       261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eaton
                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 9
AAF92116
ID AAF9
XX
AC AAF9
DX AAF92116
XX
DE Huma
XX
DE Huma
XXX
Homo
OS Hom
                                                                                                                              8
                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                             Sequences AAS45925-AAS46231 represent DNA molecules encoding and PCR primers for PRO polypeptides of the invention. The sequences of the invention can be used to detect the presence of a tumour in a mammal by comparing the level of expression of a PRO polypeptide in a test sample of cells from the animal and a control sample of normal cells, whereby a higher level of expression in the test sample indicates the presence of a tumour in the mammal. Mammals include dogs, cats, cattle, horses, sheep, pigs, goats and rabbits but are preferably human. The polypeptides can be used to stimulate tumour necrosis factor (TNF) alpha release from human blood, when contacted with it. A specific polypeptide can be used to stimulate the proliferation or differentiation of chondrocyte cells. The proteins can be used to determine the presence of tumours and also susceptibility to tumour development, particularly adrenal, lung, colon, breast, prostate, rectal, cervical, or liver tumours, in mammalian subjects. The oligonucleotide probes specific for the PRO nucleic acids can be used for genetic analysis of individuals with genetic disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ThrThrCysGlnValValAlaPheLeuLeuSerIleLeuGlyLeuAlaGly 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    269
                                                                                                               and to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161 MetValGlnThrValGlnThrArgTyrThrPheGlyAlaAlaLeuPheValGlyTrpVal 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CysileAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCACCGGGATGGACATGTGGGAGCACCCAGGACCTGTACGACAACCCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeulysCysIleArgIleGlySerMetGluAspSerAlaLysAlaAsnMetThrLeuThr
                                                                                           diagnose the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          569 A; 516 C; 487 G; 549 T; 0 U; 0 Other;
                                                                                        used to d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2121
261
0
0
0
0
 Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
Zhang
                                                                                        Novel nucleic acids encoding PRO polypeptides, u presence of tumors, such as prostate and breast screen for modulators of the compounds.
 MI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (1-2121)
Wood
                                                                                                                                                                   774pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-063-731-118 (1-261) x AAS46102
GK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.05e-148
1357.00
100.00%
100.00%
 Watanabe
                                 WPI; 2001-602746/68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MetSerThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGTCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCATCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Accrecere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          270 ACCGAATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGAAATG
                                                                                                                                                               Claim 2; Fig 355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                     P-PSDB; AAU29201
Smith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
 ٦,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match:
DB:
 Pan
 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
```

```
240
                                                                                                                                                                                                      260
                                                                                                                                                                                                                                  869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eighty four nucleic acids encoding PRO polypeptides, useful in molecular biology, including use as hybridization probes, and in chromosome and
ATGGTGCAGACTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTCGTGGGCTCGGGTC
                                          ProGluGluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr
                                                                                                             LysProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLysIle
                                                                                                                                                              Goddard A,
Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ME,
CK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gerritsen Matanabe (
```

```
1.20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09⊺
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   260
                                                                                                                                                                                                                                                                                                                                                                                                                                     329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           869
                                                                                                                                                                                                                                                                                                                                                                                                                                                            00:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              749
                                                                                                                                                                                                                                                                                                                                      209
                                                                                                                                                                                                                                                                                                                                                                                      269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 569
        (secreted and transmembrane). The PRO protein, and PRO agonists, PRO antagonists or anti-PRO antibodies are useful for preparation of a medicament useful in the treatment of a condition which is responsive to the PRO protein, agonists, antagonists or anti-PRO antibodies. The PRO protein may also be employed as molecular weight markers for protein electrophoresis. The PRO coding sequence has applications in molecular biology, including use as hybridisation probes, and in chromosome and
                                                                                                                                                                                                                                                                                                                40
                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                             80
sequence for a human PRO polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGAAGAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TyrAspGlyGlyAlaArgThrGluAspGluValGlnSerTyrProSerLysHisAspTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGGTGCCCGCACAGAGGACGAGGTACAATCTTATCCTTCCAAGCACGACTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           101 LeuLysCysIleArgIleGlySerMetGluAspSerAlaLysAlaAsnMetThrLeuThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AsnMetLeuValThrAsnPheTrpMetSerThrAlaAsnMetTyrThrGlydly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             570 Argerecagacrerreagaccageracacarringerececrererrerresegecreagere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProGluGluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLyBlle
                                                                                                                                                                                                                                                        MetSerThrThrTysGlnValValAlaPheLeuLeuSerIleLeuGlyLeuAlaGly
                                                                                                                                                                                                                                                                             CCACCACATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGGCTGGCCGGC
                                                                                                                                                                                                                                                                                                                              150 TGCATCGCGGCCACCGGGATGGACATGTGGAGCACCCCAGGACCTGTACGACAACCCCGTC
                                                                                                                                                                                                                                                                                                                                                              ThrSerValPheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                          AlaLeuMetIleValGlyIleValLeuGlyAlaIleGlyLeuLeuValSerIlePheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          330 GCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCCATCTTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          eMetPheIleValSerGlyLeuCysAlaIleAlaGlyValSerValPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGGCTTCAAGGCCAGCACTGGCTTTGGTCCAACACCAAAACAAGAAGATA
                                                                                                                                                                                                                                                                                                                                                                                     210 Accrecererrecagnacaadecereregadeacrecereageagagarreaggerre
                                                                                                                                                                                                                                                                                                                                                                                                             /sArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGAAATGCATCCGCATTGGCAGCATGGACTCTGCCAAAGCCAACATGACACTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCGGGATCATGTTCATTGTCTCTTGTGCAATTGCTGGAGTGTCTTTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .nThrValGlnThrArgTyrThrPheGlyAlaAlaLeuPheValGlyTrpVal
                                                                                                                                                                                                                                                                                                               aAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                    0 U; 0 Other;
                                                                                                                                                      2121
261
0
0
0
                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                    ..
H
                                                                                                                    549
                                                                                                                                                                                                                                        (1-2121)
                                                                                                                                                                                                                   Gaps:
                                                                                                                    487 G;
ence is the coding
                                                                                                                 ີ່:
                                                                                                                                                                                                                                        261) x AAF92116
                                                                                                                                                     1.05e-148
1357.00
100.00%
100.00%
100.00%
                                                                                                                  516
                                                                                                                      Ä,
                                                                                                                    569
                                                                                                                     BP;
                                                                                                                                                                Score:
Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SerGlyil
                                                                                                                                                                                                                                                                                                                Cysileal
                                                                                                                                                                                                                                                                                       90 Arcreca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MetValG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                             Threluc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TACGATG
                                                                                biology, includi
gene mapping
                                                                                                                    Sequence 2121
                                                                                                                                                                                                                                        US-10-063-731-118
                                                                                                                                           Alignment Scores:
Pred. No.:
present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          810
                                                                                                                                                                                                                                                                                                                                                               41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      201
                                                                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              630
                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                     555555555XXX
                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                      \text{A} \text{A}
```

```
Human; ss; gene; secreted protein; transmembrane protein; antirheumatic; antiarthritic; osteopathic; sports-related joint problem; articular cartilage defect; osteoarthritis; rheumatoid arthritis.
                                                                                                                      Human cDNA encoding secreted/transmembrane protein PRO1572
                                                            BP
                                                                                                                                                                                                                                                                97US - 0063435P.
98US - 0082797P.
98US - 0082797P.
98US - 0083495P.
98US - 00885739P.
98US - 0088023P.
98US - 0088023P.
98US - 0088023P.
98US - 0088023P.
98US - 0088825P.
98US - 0088824P.
98US - 0088825P.
98US - 0088825P.
98US - 0089514P.
98US - 0089615P.
98US - 00905444P.
98US - 0090646P.
98US - 0090646P.
98US - 0090646P.
98US - 0090646P.
98US - 0090641P.
98US - 00969162P.
98US - 00969162P.
98US - 00969162P.
98US - 00969162P.
98US - 0096916P.
                                                          CDNA; 2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US019330
98US-0100683P.
98US-0100684P.
98US-0100930P.
98US-0101279P.
                                                                                                                                                                                                                                              2001US-00006867
                                                                                                    entry)
                                                                                                   (first
                                                            standard;
                  872
                                                                                                                                                                                                     US2002119130-A1
                                                                                                                                                                                                                                                                                    22-APR-1998;

29-APR-1998;

02-JUN-1998;

04-JUN-1998;

10-JUN-1998;

10-JUN-1998;

10-JUN-1998;

10-JUN-1998;

11-JUN-1998;

12-JUN-1998;

12-JUN-1998;

12-JUN-1998;

13-JUN-1998;

14-JUN-1998;

15-JUN-1998;

16-JUN-1998;

17-JUN-1998;

18-AUG-1998;

18-AUG-1998;

10-SEP-1998;

10-SEP-1998;
                   GTG
                                                                                                                                                                                                                                               06-DEC-2001;
                                                                                                                                                                                  Homo sapiens
                                                                                                   10-DEC-2002
                                                                                                                                                                                                                          29-AUG-2002
                                                                               ABS74436;
261
                 870
                                                          ABS74436
```

```
US034956
 98US-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
200000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
20000-
24-SEP-1998;
24-SEP-1998;
24-SEP-1998;
30-SEP-1998;
06-OCT-1998;
06-OCT-1998;
06-OCT-1999;
14-MAX-1999;
01-SEP-1999;
01-SEP-1999;
15-SEP-1999;
15-SEP-1999;
16-SEP-1999;
18-FEB-2000;
22-DEC-1999;
18-FEB-2000;
22-MAX-2000;
23-AUG-2000;
24-AUG-2000;
24-AUG-2000;
24-AUG-2000;
24-AUG-2000;
24-AUG-2000;
24-AUG-2000;
24-AUG-2000;
24-AUG-2000;
24-AUG-2000;
26-FEB-2001;
27-AUG-2000;
28-FEB-2001;
29-UUN-2001;
20-UUN-2001;
20-UUN-2001;
```

INC.

Godowski PJ; Goddard A, Wood WI; Gerritsen ME, Watanabe CK, Lvaroff E, Gurney AL, Filvaro DĽ, Eaton DL, Grimaldi

WPI; 2002-731348/79 P-PSDB; ABG95909.

New isolated secreted and transmembrane PRO polypeptide useful for modulating biological activity of a cell, or for treating sports-related joint problems, osteoarthritis or rheumatoid arthritis.

399pp; English 117; Fig 2; Claim

The invention relates to an isolated secreted and transmembrane PRO polypeptide having 80 % sequence identity to a sequence appearing as ABG95851-ABG95934 or their associated signal peptide, or a sequence of an extracellular domain of the proteins with their associated signal peptide. Or lacking its associated signal peptide. Also included are the nucleic or lacking its associated signal peptide. Also included are the nucleic acids encoding the proteins, vectors, host cells, fusion proteins and carids encoding the proteins, vectors, host cells, fusion proteins and cand by peptide designated as B, B, C or D in a sample conspected of containing an A, B, C or D polypeptide, by contacting the sample which a polypeptide designated as B, F, G, H or D in a sample conjugate in the sample, where he formation of the conjugate is and determining the formation of a A, B, C or D polypeptide, or indicative of the presence of an A, B, C or D polypeptide, C is a prological polypeptide, B is a PRO1272 polypeptide, B is a PRO2010 polypeptide, C is a pro10095 polypeptide, D is a PRO1960 polypeptide, E is a PRO5011 polypeptide, C is a pro10095 polypeptide, B is a PRO20040 polypeptide, D is a pro1009 polypeptide. B is a pro2011 polypeptide, C is a cell suspected of expressing the A, B, C or D polypeptide. The B, F, G, H or I polypeptide is labeled with a detectable label or is attached to a cell support. The proteins are useful for linking a bioactive molecule is a toxin, a radiolabel or an antibody. C or I, or antibodies against them are useful for modulating a biological activity of a cell expressing a polypeptide designated as A, B, C or D or E, F, G, H, or I. The cell is killed. The proteins are useful for the preparation of a medicament identifying agonists or antagonists, for the preparation of a medicament

|--|

g

ga &

```
98US-0083495P.
98US-0083496P.
98US-0083496P.
98US-0084366P.
98US-0084366P.
98US-0084414P.
98US-0084414P.
98US-0084414P.
98US-0084414P.
98US-0084414P.
98US-008441P.
98US-008532P.
98US-008632P.
98US-008812P.
98US-008812P.
98US-008812P.
98US-008812P.
98US-008812P.
98US-008812P.
98US-008812P.
98US-008812P.
98US-008953P.
98US-008952P.
98US-008953P.
98US-008953P.
98US-008953P.
98US-008953P.
98US-008953P.
98US-008953P.
98US-008953P.
98US-008953P.
98US-009953P.
98US-009953P.
98US-009953P.
98US-009953P.
98US-009953P.
98US-009953P.
98US-009963P.
98US-009063P.
98US-009063P.
98US-009063P.
                                                                                                                                                                                       22-MAY-1998;

28-MAY-1998;

28-MAY-1998;

02-JUN-1998;

04-JUN-1998;

04-JUN-1998;

04-JUN-1998;

04-JUN-1998;

04-JUN-1998;

05-JUN-1998;

05-JUN-1998;

05-JUN-1998;

10-JUN-1998;

10-JUN-1998;

11-JUN-1998;

11-JUN-1998;
  29-APR-1998;
29-APR-1998;
29-APR-1998;
05-MAY-1998;
07-MAY-1998;
07-MAY-1998;
07-MAY-1998;
15-MAY-1998;
15-MAY-1998;
15-MAY-1998;
15-MAY-1998;
15-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-JUN-1998;
24-JUN-1998;
24-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
26-JUN-1998;
26-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-JUN-1998;
26-JUN-1998;
01-JUL-1998;
01-JUL-1998;
02-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-JUN-1998;
19-JUN-1998;
22-JUN-1998;
22-JUN-1998;
24-JUN-1998;
24-JUN-1998;
    260
                                                      869
 ; ss; cytostatic; tumour; cancer; breast; lung; stomach; cow; horse; sheep; pig; goat; rabbit; ADEPT; it enzyme mediated prodrug therapy.
                          BP
                                                                                                                                                            CDNA; 2121
                                                                                                                                                                                                                                       Human PRO polynucleotide #178
                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0059263P.
97US-0063266P.
97US-0063120P.
97US-0063120P.
97US-0063121P.
97US-0063121P.
97US-0063121P.
97US-0063121P.
97US-0063121P.
97US-0063544P.
97US-0063544P.
97US-0063544P.
97US-0063544P.
97US-0063544P.
97US-0063564P.
97US-006311P.
97US-0080194P.
98US-0080194P.
98US-0080194P.
98US-0080194P.
98US-0080194P.
98US-0080194P.
98US-0080194P.
98US-0080194P.
98US-0080194P.
                                                                                                                                                                                                                                                                                                                                                                                                       2US-00176492
                                                                                                                                                                                                                 entry)
                                                                                                                             RESULT 11
ABX78705
ID ABX78705 standard; cl
XX
AC ABX78705;
XX
AC ABX78705;
XX
DT 15-APR-2003 (first 6
XX
DD Human PRO polynucleol
XX
Human, PRO; gene; ss
KW Human, PRO; gene; ss
KW Human, PRO; gene; cow
XX
Human, PRO; gene; ss
KW Human, PRO; gene; ss
XX
DG G-FEB-2003.
DR 28-OCT-1997; 97US-197; 97US-1997; 97US-197; 9
                                                                                                                                                                                                                 rst
                                                                          Val 261
                                                                                                      GTG 872
750
                                                                                                   870
                           241
                                                  810
                                                                             261
```

40

269

9

100

```
ThrGluCysArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                           LysProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLysIle
                                                                                 CysileAlaAlaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                     Human; secreted and transmembrane protein: PRO; gene therapy; tumour necrosis factor-alpha release; TNF-alpha release; chondrocyte proliferation; chondrocyte differentiation; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein PR01572
 0
                      (1-2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ВР
                      US-10-063-731-118 (1-261) x ABX78705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDNA; 2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           secreted
  7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACA75677 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTG
                                                                                                        150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACA75677;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         810
                                                                                                                                                                                                                                                                                                                  450
                                                                                                                                                                                                                                                                                                                                                              510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   870
                                                                                                                                                 210
                                                                                                                                                                                         270
                                                                                                                                                                                                                                                                           390
                                                                                                                                                                                                                                                                                                                                                                                                       570
                                                                                                                                                                                                                                                                                                                                                                                                                                                 630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                261
                                                                                  21
                                                                                                                            41
                                                                                                                                                                     61
                                                                                                                                                                                                               81
                                                                                                                                                                                                                                  330
                                                                                                                                                                                                                                                       101
                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                         141
                                                                                                                                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 12
ACA75677
ID ACA75
XX
AC ACA75
XX
DT 07-JU
XX
DE Novel
XX
KW Human
KW tumou
                                                                                                                                                                                                                                                                                        중
유
                                          유
정
                                                                             ð
                                                                                                  g
                                                                                                                           8
                                                                                                                                                             $ 8 $
                                                                                                                                                                                                                            8 B
                                                                                                                                                                                                                                                                      Db
                                                                                                                                                                                                                                                                                                                                  8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                      品 格 品 依
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
98US-0091626P.
98US-0091628P.
98US-0091632P.
98US-0091632P.
98US-0095282P.
98US-0095282P.
98US-00956012P.
98US-0096012P.
98US-0096013P.
98US-0096867P.
98US-00968873P.
98US-00968873P.
98US-00968873P.
98US-0101472P.
98US-0101473P.
98US-0101788P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.05e-148
1357.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
Pred. No.:
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
10-JUC-1998;
10-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
18-AUG-1998;
19-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
11-SEP-1998;
12-SEP-1998;
13-SEP-1998;
14-SEP-1998;
15-SEP-1998;
16-SEP-1998;
17-SEP-1998;
18-SEP-1998;
19-SEP-1998;
19-SE
```

749

200

```
98US - 0088028P.
98US - 0088028P.
98US - 0088029P.
98US - 0088326P.
98US - 00883126P.
98US - 0088312F.
98US - 0088312F.
98US - 0088212P.
98US - 0088212P.
98US - 0088728P.
98US - 0089538P.
98US - 0089538P.
98US - 0089538P.
98US - 0090654P.
98US - 0090654P.
98US - 0090654P.
98US - 0090658P.
98US - 0090658P.
98US - 0090658P.
98US - 0090658P.
98US - 0090659P.
98US - 0090669P.
98US - 0090669P.
98US - 0090669P.
98US - 009669P.
               83
               gene;
 lung tumour; colon tumour; breast tumour;
rectal tumour; cervical tumour; liver tumour;
                                                                                                                          97US-0059263P.
97US-0063266P.
97US-0063250P.
97US-0063120P.
97US-0063121P.
97US-006312P.
9
                                                                                                      2US-00183012
 ~
 tumour; le tumour;
                                                                                                     2003
                                                                                                                             US2003032127-
                                                                                                                          18-SEP-1997;
18-SEP-1997;
17-OCT-1997;
24-OCT-1997;
24-OCT-1997;
28-OCT-1997;
28-OCT-1997;
28-OCT-1997;
28-OCT-1997;
28-OCT-1997;
31-OCT-1997;
31-OCT-1997;
31-OCT-1997;
31-OCT-1997;
31-OCT-1997;
31-OCT-1998;
31-MAR-1998;
31-MAY-1998;
31-MAY-1998;
31-MAY-1998;
31-MAY-1998;
31-MAY-1998;
31-MAY-1998;
32-MAY-1998;
33-MAY-1998;
33-MAY-1998;
33-MAY-1998;
                                   sapiens
                                                                                                     26-JUN-2002
 adrenal to
prostate (
```

Fri

160

569 180 629 200 689

449 140 240

809

260

869

220

749

```
AlaGlyGlyLeuThrLeuIleGlyGlyValMetMetCy8IleAlaCy8ArgGlyLeuAla
                                                                                                                                                                                                                                                                                              CTGAAATGCATCCGCATTGCCATGGACTCTGCCAAAGCCAACATGACGTGACC
                                                                                                                                                                                                                                                          GCTGGAGGCCTCACACTAATTGGGGGTGTGATGATGTGCATCGCCTGCCGGGGCCTGGCA
                                                                                                                                                                                                                                                                                                                                                                    transmembrane protein; PRO; TNF-alpha; chondrocyte cell; tumour; gene therapy
                                                                                                                                                                                                                                                                                                                                                    LysProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDNA #178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein (PRO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                secreted and factor alpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US-0059263P.
97US-0059266P.
97US-0062250P.
97US-0063120P.
97US-0063540P.
97US-0063544P.
97US-0063544P.
97US-0063544P.
97US-0063544P.
97US-006354P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human secreted/transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2002US-00176756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene; ss;
necrosis f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US2003032112-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tissue typing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-SEP-1997;
18-SEP-1997;
17-OCT-1997;
21-OCT-1997;
24-OCT-1997;
28-OCT-1997;
28-OCT-1997;
28-OCT-1997;
28-OCT-1997;
31-OCT-1997;
31-OCT-1997;
31-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-FEB-2003
                                                                                                                                                      510
                                                                                                                                                                                                                                                                                                                                                                                  750
                                          390
                                                                                                 450
                                                                                                                                                                                                              570
                                                                                                                                                                                                                                                                     630
                                                                                                                                                                                                                                                                                                                          069
                                                                                                                                                                                                                                                                                                                                                                                                                                        810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                870
                                                                      121
                                                                                                                           141
                                                                                                                                                                                   161
                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                                                                      221
                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACA71157
               101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACA71157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACA71157

ID ACA7

XX

ACC ACA7

XX

XX

DE Huma

XX

DE Huma

XX

KW Huma

                                                                                                                                                                                                                                                             음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 6
                                                                                                                                              යි රි
                                                                                                                                                                                                     쉽
                                                                                                                                                                                                                              ♉
                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                            ⋩
                                                                                                                                                                                                                                                                                                                                                                                                   ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CysilealaalaThrGlyMetAspMetTrpSerThrGlnAspLeuTyrAspAsnProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           eValGlyIleValLeuGlyAlaIleGlyLeuLeuValSerIlePheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Thr Thr CysGlnValValAlaPheLeuLeuSerIleLeuGlyLeuAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2121
261
0
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (1-2121)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACA75677
98US-0098014P.
98US-0098716P.
98US-0098821P.
98US-0098821P.
98US-0099602P.
98US-0099764P.
98US-0099764P.
98US-0099764P.
98US-0100684P.
98US-0100684P.
98US-0100684P.
98US-0100684P.
98US-010173P.
98US-010147P.
98US-0101472P.
98US-0101473P.
98US-0101739P.
98US-0101739P.
98US-0101739P.
98US-0101739P.
98US-0101739P.
98US-0101739P.
98US-0101739P.
98US-0101733P.
98US-0101733P.
98US-0101733P.
98US-0101733P.
98US-0101733P.
98US-0101733P.
98US-0101733P.
98US-0101733P.
98US-0101733P.
98US-0101738P.
98US-0101738P.
98US-0101738P.
98US-0101738P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.05e-148
1357.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaLeuMetI
|||||||||
GCCCTGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGTCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (1-26)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MetSerThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              int Similarity:
Local Similarity
Match:
26-AUG-1998;
01-SEP-1998;
02-SEP-1998;
02-SEP-1998;
02-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
16-SEP-1998;
16-SEP-1998;
17-SEP-1998;
17-SEP-1998;
17-SEP-1998;
17-SEP-1998;
18-SEP-1998;
18-SEP-1998;
23-SEP-1998;
23-SEP-1998;
23-SEP-1998;
24-SEP-1998;
24-SEP-1998;
25-SEP-1998;
25-SEP-1998;
26-SEP-1998;
27-SEP-1998;
28-SEP-1998;
29-SEP-1998;
29-SEP-1998;
29-SEP-1998;
29-SEP-1998;
29-SEP-1998;
29-SEP-1998;
30-SEP-1998;
30-SEP-1998;
30-SEP-1998;
30-SEP-1998;
30-SEP-1998;
30-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-063-731-118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lignment
red. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score:
Percent
Best Loc
Query Ma
```

ద

8

8 6 6 6 6 6

7US-0066120P 7US-006646EP 7US-006932P 7US-0069335P 7US-006980P 7US-0069810P 7US-0069810P 8US-0077632P 8US-0077632P 8US-0077632P 8US-0077632P 8US-0077649P 8US-0077649P	98US-0080194P. 98US-0080327P. 98US-0080333P. 98US-0081049P. 98US-0081195P. 98US-0081195P. 98US-0082569P. 98US-0082569P. 98US-0082797P. 98US-0083495P. 98US-0083495P. 98US-0083495P. 98US-0084414P. 98US-0084464P. 98US-0084643P. 98US-0084643P. 98US-0084643P. 98US-0084643P. 98US-0084643P. 98US-0084643P. 98US-0084643P. 98US-0084643P. 98US-0085589P. 98US-0085589P.	8US-0087759P 8US-0087827P 8US-0088028P 8US-0088028P 8US-0088033P 8US-0088202P 8US-0088212P 8US-0088212P 8US-0088212P 8US-0088217P 8US-0088218P 8US-0088218P 8US-008821P 8US-0088828P
1-NOV-1997 4-NOV-1997 4-NOV-1997 1-DEC-1997 7-DEC-1997 7-DEC-1997 8-DEC-1997 8-DEC-1998 1-MAR-1998 1-MAR-1998 7-MAR-1998	31-MAR-1998; 01-APR-1998; 08-APR-1998; 08-APR-1998; 09-APR-1998; 21-APR-1998; 21-APR-1998; 22-APR-1998; 22-APR-1998; 22-APR-1998; 22-APR-1998; 29-APR-1998; 29-APR-1998; 07-MAY-1998; 07-MAY-1998; 07-MAY-1998; 15-MAY-1998; 15-MAY-1998; 15-MAY-1998; 15-MAY-1998; 22-MAY-1998; 22-MAY-1998; 22-MAY-1998; 22-MAY-1998; 22-MAY-1998; 22-MAY-1998; 22-MAY-1998; 22-MAY-1998; 22-MAY-1998;	2-JUN-1998 3-JUN-1998 4-JUN-1998 4-JUN-1998 4-JUN-1998 4-JUN-1998 5-JUN-1998 5-JUN-1998 6-JUN-1998 0-JUN-1998 0-JUN-1998 0-JUN-1998 0-JUN-1998 0-JUN-1998 0-JUN-1998
<mark>ጜ ፞</mark>	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	**************************************

 PR
 17-JUN-1998
 98US-0089559P

 PR
 17-JUN-1998
 98US-0089553P

 PR
 19-JUN-1998
 98US-0089552P

 PR
 22-JUN-1998
 98US-008952P

 PR
 22-JUN-1998
 98US-008952P

 PR
 22-JUN-1998
 98US-0090244P

 PR
 22-JUN-1998
 98US-0090144P

 PR
 22-JUN-1998
 98US-0090144P

 PR
 22-JUN-1998
 98US-0090144P

 PR
 22-JUN-1998
 98US-0090144P

 PR
 24-JUN-1998
 98US-0090144P

 PR
 24-JUN-1998
 98US-009063P

 PR
 24-JUN-1998
 98US-009063P

 PR
 25-JUN-1998
 98US-009063P

 PR
 26-JUN-1998
 98US-

```
261
                                                                                                                                                            872
                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003027278-A1.
                                                                                                                                                             GIG
                                                                                                                                     Val
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-SEP-1997;
18-SEP-1997;
21-OCT-1997;
24-OCT-1997;
28-OCT-1997;
28-OCT-1997;
28-OCT-1997;
28-OCT-1997;
31-OCT-1997;
31-OCT-1998;
                                                                                                                                                                                                                                                                   05-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-FEB-2003
                                                      750
     069
                                                                                 241
                                                                                                         810
                                                                                                                                     261
                                                                                                                                                            870
                             221
                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                    RESULT 14
ACC87685
                                                                                                                                                                                                                                                                                                                                                                                                                               Ношо
                                                                                                                                                                                                                              - 원
                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          689
                                                                                                                                                                                                                                                                                                                                                                                                                                         149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80
                                                                                                                                                                                                                                                                                                                                                                                                                               ACCACATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGGCTGGCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 heGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AlaLeuMetIleValGlyIleValLeuGlyAlaIleGlyLeuLeuValSerIlePheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCCATCTTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              let Phe I le Val Ser Gly Leu Cyshla I le Ala Gly Val Ser Val Phe Ala
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ChrValGlnThrArgTyrThrPheGlyAlaAlaLeuPheValGlyTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              euThrLeuIleGlyGlyValMetMetCysIleAlaCysArgGlyLeuAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         crcacacraarregescrereargargrecarcecreecesescresca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProGluGluThrAsnTyrLysAlaValSerTyrHisAlaSerGlyHisSerValAlaTyr
                                                                                                                                                                                                                                                                                                                                                                                                                LeuLeuSerlleLeuGlyLeuAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rgProTyrPheThrlleLeuGlyLeuProAlaMetLeuGlnAlaValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGITCATIGICTCAGGICTTTGIGGAATIGCTGGAGTGICTGTTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTTCGTGGGCTGGGTC
                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                ChrThrCysGlnValValAlaPheI
                                                                                                                                                                                                                                                                                                                                                            Gaps:
                                                                                                                                                                                                                                                                                                                                                                                      (1-2121)
                                                                                                                                                                                                                                                                                                                                                                                       x ACA71157
98US-0101475P.

98US-0101477P.

98US-0101739P.

98US-0101743P.

98US-0101743P.

98US-010122P.

98US-010220P.

98US-0102330P.

98US-0102330P.

98US-01023487P.

98US-010257P.

98US-010258P.

98US-010257P.

98US-010257P.

98US-010257P.

98US-010257P.

98US-010257P.

98US-010257P.

98US-010257P.
                                                                                                                                                                                                                                                                                           1.05e-148
1357.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                       \Box
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SerGlyIleM
                                                                                                                                                                                                                                                                                                                                                                                                                             ATGTCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ||||||||||
TCCGGGATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrSerValP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MetValGlnT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AlaglyglyL
|||||||||
GCTGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Leuryscysi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGAAATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCCTGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-063-731-118 (1-26)
                                                                                                                                                                                                                                                                                                                cent Similarity:
  Local Similarity:
  Y Match:
  23-SEP-1998;
24-SEP-1998;
24-SEP-1998;
24-SEP-1998;
24-SEP-1998;
25-SEP-1998;
29-SEP-1998;
30-SEP-1998;
30-SEP-1998;
01-OCT-1998;
06-OCT-1998;
06-OCT-1998;
                                                                                                                                                                                                                                                                                Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                       90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                             Alignment Sc
Pred. No.:
Score:
Percent Sim:
Best Local &
Query Match
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                $ B $
   RAHARA RA
```

```
809
                                                                                                                  260
                                      240
                                                                                                                                                        869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; PRO; secreted protein; transmembrane protein; extracellular domain; tumour necrosis factor-alpha; TNF-alpha; chondrocyte; proliferation; differentiation; cartilage disorder; bone disorder; arthritis; sports injury; cancer; tumour; diagnosis; adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix; liver; drug screening; transgenic animal; genetic analysis; antiarthritic; vulnerary; gene therapy; gene; ss.
                                                           LysProGlyGlyPheLysAlaSerThrGlyPheGlySerAsnThrLysAsnLysLle
CCAGAAGAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                      ID NO:355
                                                                                                                                                                                                                                                                                                                                                                                                                                      secreted polypeptide PRO1572-encoding cDNA, SEQ
                                                                                                                                                                                                                                                                                                                     BP
                                                                                                                                                                                                                                                                                                                   ACC87685 standard; cDNA; 2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0059263P.
97US-0069266P.
97US-0063120P.
97US-0063121P.
97US-0063121P.
97US-0063544P.
97US-0063544P.
97US-0063544P.
97US-0063544P.
97US-0063544P.
97US-0063544P.
97US-0063544P.
97US-006311P.
97US-0069420P.
97US-0069420P.
98US-0077450P.
98US-0077450P.
98US-0077450P.
98US-0078939P.
98US-0078939P.
98US-0078933P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2002US-00176987
                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
```

.rng
∞
Н
Н
1
731.
ന
~
ı
ന
063
0
1
0
Ä
1
us
₽

																		•														
0081838P. 0082568P. 0082569P.	704P. 797P. 322P.	495P. 496P.	499P. 559P.	414P.	640P.	579P.	582P.	023P.	486P.	208P.	759P. 827P.	025P.	029P.	326P.	202P.	217P.	722P.	740P.	824P.	826P.	863P.	1090P.	512P.	538P. 598P.	653P. 908P.	952P.	252P.	429P.	444P.	535P.	676P.	688P.
7 7 7	~ ~ ~	7 7	$\gamma \gamma \gamma$	~ ~ ~	~ ~ `	7 7 7	~~	7 7	7 7	7 7	ŤŤ	7 7	, ,	, , ,	7 7	7 7	· ·	7 7	7 7	1 1	7 7	7 7	7 7	~ ~	- -	ŤŤ	7 7	T T	7 7	7.7	7 7	7 7
98US- 98US- 98US-	98086 9808	9808 9808	9808	9808	3086 3086	9808	9808	98U8	98US 9BUS	9808 9808	98US 98US	98US	9809	9809	9808 9086	9808	9808	9808 9808	98US 98US	98U8 98U8	98US 98US	98U8 98U8	9806 9805	98U8 98U8	98US 98US	9808 9808	9808	98U8 98U8	98U86	98U8 98U8	9808	9808
998; 998; 998;	9 9 9	8 8	8 8 9	9 60 0	0 00 0	0 00 0	86	86	98 98	98	98	98	8 8	0 00 0	9 9 9	800	86	8 8	800	98	98	98	98	9 8	9 8	8 8	000	ω ω ω ω	9 8	98	8 8	900
ddd	근근근	न्न	런던드	1	4			ਜ਼ਜ਼	ᅻᅻ	44	<u>-</u>	77	14.	1	ᆟᅻᅻ	7.	ान् न	ਜ਼ਿਜ਼	$\vec{-}$	ᅻᆏ	न् न्	77	44	ᅼᅼ	ᅻᅻ	구구·	근근,	<u> </u>	44	ᅻᅻ	٦	44
221-7 21-1 21-1	C1 (1 (2)	on on	ดา ยา แ	nuor	- 1- 1	~ uı u		W (1	W W	ω	(1)	vv	. 4. 4		, 4, 4,	G 1 O	(2) (2)	-	α	$^{\circ}$	~	(4 (4	\mathbf{w}		יי ש	ואורטוט	$\alpha \alpha$	~~	ਹਾ ਹਾ	4	u , u	1 11 11 14
	യയയ	02 n2	24 24 2	4 04 0	4 04 0	4 124 124	24 24	24 124	8 8	24 24	작 氏	24 24	(pc; pc	4 24 24	i ex ex	a a	24 24	24 24	e e	K K	24 24	<u>بر</u> و	K K	24 24	κκ	<u> </u>	24 12	24 24	~ ~	4 4	ğά ğ	PR

98US - 0090696P 98US - 00105413 98US - 0090862P 98US - 0090863P 98US - 00911544P 98US - 0091544P 98US - 009154P 98US - 009162P 98US - 009689P 98US - 00969P 98US - 0096012P 98US - 0009791P 98US - 010174P 98US - 010147P 98US - 010178P 98US - 01012570P 98US - 0102571P 98US - 0102571P 98US - 0102571P

1.05e-148 cores

Length:

ø

us-10-063-731-118.rn

σ Н

```
140
                                                                                                                                                                                                                                                                                                   240
                                                        149
                                                                              209
                                                                                                    269
                                                                                                                                                 389
                                                                                                                                                                                              509
                                                                                                                                                                                                                    569
                                                                  40
                                                                                         9
                                                                                                                80
                                                                                                                                                                                                                                                      .euThrLeulleGlyGlyValMetMetCysIleAlaCysArgGlyLeuAla
                                                                                                                                                                                                                                                                                                  rgProTyrPheThr11eLeuGlyLeuProAlametLeuGlnAlaValArg
                                                                                                                      ATGITICATIGICITCAGGICITIGIGCAATIGCTGGAGTGTCTGTGTTTTGCC
                                                                                                                                                                                                                                                             CTCACACTAATTGGGGGTGTGATGATGTGCATCGCCTGCCGGGGCCTGGCA
                                                                                                                                                                                                                                                                                                                         lyalaargThrGluaspGluValGlnSerTyrProSerLysHiBAspTyr
                                                                                                                                                                                                                                                                                                                              CCACATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGGCTGGCCGGC
                                                                                                                                                             eArgIleGlySerMetGluAspSerAlaLysAlaAsnMetThrLeuThr
                                                                                                                                                                   TCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAAAGACATGACA
                                                                                                                                                                                   etPheIleValSerGlyLeuCyBAlaIleAlaGlyValSerValPheAla
                                             hrThrCysGlnValValAlaPheLeuLeuSerIleLeuGlyLeuAlaGly
                                                                                                                                                                                                         alThrAsnPheTrpMetSerThrAlaAsnMetTyrThrGlyMetGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide PRO1572-encoding cDNA, SEQ ID NO:355
261
0
0
0
0
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                 (1-2121)
                                                                                                                                                                                                                                                                                                                                                                                 ВР
                                 x ACC87685
                                                                                                                                                                                                                                                                                                                                                                                 2121
1357.00
100.00%
100.00%
100.00%
                                  US-10-063-731-118 (1-261)
                                                                                                                                                                                                                                                                                                                                                                                                        (first
                                                       90 ArGrecace
                                                                                                 210 ACCTCCGTGT
                                                                                                              61 ThrGluCysA
                                                                                                                      ||||||||||
270 ACCGAATGCA
                                                                                                                                                                                   121 SerGly11eM
                                                                                                                                                                                                         141 AsnMetLeuV
                                                                                                                                                                                                                                                      181 AlagiyGlyL
                                                                                                                                                                                                                                                                                    CCAGAAGAAA
                                                                                                                                                                                                                                                                                                                         TyrAspGlyG
                                                                                                                                                                                                                                                                                                                                                                                                                   Human secreted poly
                                                                                                                                                                       390 CTGAAATGCA
                                                                                                                                                                                                                                MetValGlnI
                                                                                                                                                                                                                                                                            ProGluGluI
                                                                                                                                                             101 LeuLysCysi
                                                                                                                                                                                             450 recedence
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                      ||||||||||
570 ATGGTGCAG
                                                                                                                                                                                                                                                                630 GCTGGAGGC
                                             1 MetSerThr1
                                                                                                                                                                                                                                                                                                                                    810 TACGATGGA
                                                                                                                                                                                                                                                                                                                                                                                 ACC87071 standard;
                                                                                                                                                                                                                                                                                                                                                261 Val 261
                                                                                                                                                                                                                                                                                                                                                        ||||
|870 GTG 872
                                                                                                                                                                                                                                                                                                                                                                                                        05-AUG-2003
                                                                                                                                                                                                                                                                                       069
                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                            ACC87071;
                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                                                                                                     RESULT 15
ACC87071
ID ACC87
                                                                                                                                                                                                                                                                                                                                                                                       明然は終れる
                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                     D
                                                      g
                                                                                                                                                                       g
                                                                                                                                                                                   ঠ
                                                                                                                                                                                              g
                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                   ਨੋ
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                 ದ್ದ
                                             ð
                                                                             ద
                                                                                                   엄
                                                                                                                ਨੋ
                                                                                                                          D
                                                                                                                                      ₹
                                                                                                                                                 g
                                                                                                                                                                                                         à
                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                         ਨੇ
                                                                   ð
                                                                                         ò
```

```
Human; PRO; secreted protein; transmembrane protein; extracellular domain; tumour necrosis factor-alpha; TNF-alpha; chondrocyte; proliferation; differentiation; cartilage disorder; bone disorder; arthritis; sports injury; cancer; tumour; diagnosis; adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix; liver; drug screening; transgenic animal; genetic analysis; antiarthritic; vulnerary; gene therapy; gene; ss.
                                                                                                                                                                                                                                                              97US - 0059263P

97US - 0063266P

97US - 0063121P

97US - 0063121P

97US - 0063121P

97US - 0063121P

97US - 0063544P

97US - 0063544P

97US - 0063544P

97US - 0063544P

97US - 006354P

97US - 006312P

97US - 0064103P

97US - 006335P

97US - 0064103P

97US - 0064103P

98US - 0077649P

98US - 006912P

98US - 007986P

98US - 0081195P

98US - 0081568P

98US - 0081568P

98US - 0082704P

98US - 0082569P

98US - 0082569P

98US - 0083496P

98US - 0083496P

98US - 0084414P

98US - 0084640P

98US - 0084640P

98US - 0084640P

98US - 0084641P

98US - 0084641P

98US - 0084640P

98US - 0085580P

98US - 0085580P

98US - 0085580P

98US - 0085580P
                                                                                                                                                                                                                                    2002US-00188773
                                                                                                                                                                   US2003036159-A1.
                                                                                                                                                                                                                                                                  18-SEP-1997;
18-SEP-1997;
21-0CT-1997;
24-0CT-1997;
28-0CT-1997;
28-0CT-1997;
28-0CT-1997;
28-0CT-1997;
21-0CT-1997;
31-0CT-1997;
31-0CT-1997;
31-0CT-1997;
31-0CT-1997;
31-0CT-1997;
31-0CT-1997;
31-0CT-1997;
31-0CT-1998;
31-MAR-1998;
32-APR-1998;
32-APR-1998;
32-APR-1998;
33-APR-1998;
34-MAY-1998;
35-MAY-1998;
35-MAY-1998;
35-MAY-1998;
35-MAY-1998;
36-MAY-1998;
31-MAY-1998;
31-MAY-1998;
31-MAY-1998;
31-MAY-1998;
31-MAY-1998;
31-MAY-1998;
31-MAY-1998;
31-MAY-1998;
                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                   02-JUL-2002;
                                                                                                                                                                                                     20-FEB-2003
```

```
98US-0087759P.
98US-0088023P.
98US-0088212P.
98US-0089538P.
98US-0090535P.
98US-009063P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0096757P.
98US-0096766P.
98US-0096867P.
98US-0096891P.
98US-00968949P.
 222-MAY-1998;
28-MAY-1998;
28-MAY-1998;
02-JUN-1998;
03-JUN-1998;
04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
05-JUN-1998;
05-JUN-1998;
10-JUN-1998;
11-JUN-1998;
12-JUN-1998;
12-JUN-1998;
12-JUN-1998;
14-JUN-1998;
15-JUN-1998;
16-JUN-1998;
17-JUN-1998;
18-JUN-1998;
18-JUN-1998;
19-JUN-1998;
10-JUN-1998;
11-JUN-1998;
12-JUN-1998;
12-JUN-1998;
13-JUN-1998;
14-JUN-1998;
15-JUN-1998;
16-JUN-1998;
17-JUN-1998;
18-JUN-1998;
19-JUN-1998;
10-JUN-1998;
10-JUN-1998;
11-JUN-1998;
11-J
```

	:: 2121 s: 261 vative: 0 ches: 0 :: 0	heLeuLeuSerIleLeuGlyLeuAlaGly
	Length Matche Conser Mismat Indels Gaps:	I (I-2121) ValValAlaPheLeu
98US-0097052P. 98US-0097952P. 98US-0097955P. 98US-0097971P. 98US-009771P. 98US-009771P. 98US-0098716P. 98US-0098716P. 98US-0098712P. 98US-0098821P. 98US-0098821P. 98US-0099741P. 98US-0099741P. 98US-0099741P. 98US-0099763P. 98US-0100662P. 98US-010068P. 98US-010068P. 98US-010068P. 98US-0100178P. 98US-010178P. 98US-010178P. 98US-010173P.	1.05 1.05 1.00 1.00 7.00	
18 - AUG-1998; 26 - AUG-1998; 27 - SEP-1998; 27 - S	ment Sco No.: it Simil Local Si Match:	-063-/31- 1 90 21 150
## ## ## ## ## ## ## ## ## ## ## ## ##	Alignmen Pred. No Score: Percent Best Loc Query Ma DB:	77-50 70 70 70 70 70 70

329

80

ThrGluCysArgProTyrPheThrIleLeuGlyLeuProAlaMetLeuGlnAlaValArg

61

8 B 8

ThrSerValPheGlnTyrGluGlyLeuTrpArgSerCysValArgGlnSerSerGlyPhe 210 ACCTCCGTGTTCCAGTACGAAGGGCTCTGGAGGAGCTGCGTGAGGCAGAGGTTCAGGCTTC

41

269

209 40

```
160
180
                                   200
                                             749
                                                 240
                               629
                                                    809
                                         101 LeuLysCysI.
|||||||||
390 CTGAAATGCA.
                                                          810 TACGATGGA
                                                                |||
870 GTG 872
                                                               261 Val 261
                                         8
8
8
8
四次 四次 四次 四次
                           2000年
                                                   dd
                                                          d
                                                       Š
                                                              ₽
```

21:21:12 2004, Search completed: September Job time : 335 secs

664 31.3 675 12 BG54746 656.8 31.0 743 12 BM98999 647.2 30.5 1138 14 CF11034 623 29.4 680 12 BM75927	9 607.6 28.6 795 29 AY40251 0 593.2 28.0 617 29 AY40251	1 588.2 27.7 627 12 BQ01689 2 552 26.0 743 12 BIB2371 3 525.8 24.8 681 14 CB46234 4 519 24.5 651 12 BMB3776	15 495.8 23.4 653 12 BM788945 16 434 20.5 549 12 BM791457 17 413.2 19.5 961 12 BG538299 18 394 18.6 567 13 BX528145	9 386 18.2 627 10 BB66368 0 378 17.8 540 12 BM83673 1 377.2 17.8 600 12 BM99785	22 374.6 17.7 797 13 BU94663 23 373.6 17.6 421 10 BF09102	4 360.8 17.0 379 10 BE84129 5 349.6 16.5 420 14 N99013	b 346.8 16.4 458 10 BE841 7 341 16.1 341 12 BM836 8 340.2 16.0 412 10 AW867	9 339.6 16.0 402 12 BG93795 0 339 16.0 493 14 CA43627 1 330 16.0 EE2 12 BM81972	1 339 16.0 557 12 BM81970 557 12 BM81970 557 12 BM81970 557 12 BM81970	4 337.4 15.9 458 13 BXIO827 5 336 15.8 395 9 AA961052	36 335.8 15.8 585 12 BM78570	38 335,6 15.8 633 10 BB65526 39 335,4 15.8 633 10 BB65526 39 39 335,4 15 8 403 9 \$\text{\$15.6840}\$	334.4 15.8 483 9 MIIB/329	1 334:2 13:8 393 12 BM82946 2 333.8 15.7 367 9 AW027675	3 315.4 14.9 649 10 BB5294 4 308.2 14.5 548 9 AA88222	5 308 14.5 731 29 CE21071 6 305.8 14.4 660 29 AG14843	47 301 14.2 622 10 BF42674	0 300.4 14.2 428 10 AM31906 9 295 13.9 484 9 AA028634	1 283.8 13.4 441 12 BM83920	2 268.2 12.6 633 10 BF42686 3 249.2 11.7 374 13 BY06318	4 248.8 11.7 1069 14 CB59676 5 236.8 11.2 455 12 BM75156 6 231 10 232 14 N99640	7 219.4 10.3 26.2 3 A18725593 8 20.2 9.5 5.0 14 CB22041	9 188.2 8.9 550 13 BQ21004 0 183 8.6 642 28 AQ42674	1 183 8.6 740 14 CB59722 2 182.2 8.6 3868 11 BC03390	63 179.6 8.5 670 29 AG08677	4 1/9 8.4 449 9 Al3656 5 178.2 8.4 704 28 BZ598 6 177.6 8.4 884 13 BU187	67 177 8.3 660 29 AG14287 68 176.4 8.3 724 29 AG11795	9 176 8.3 424 14 H01809 0 176 8.3 461 10 AW81738	1 175.8 8.3 978 12 BM475 2 175.6 8.3 333 9 AA7306	3 174.6 8.2 466 14 H07128 4 174.2 8.2 544 13 BX49175	5 174 8.2 774 28 AQ745 6 173.4 8.2 662 29 AG182 7 173.2 8.2 649 13 BU617
5.1.6 Compugen Ltd.		19; Search time 3730 Seconds (without alignments) 16980.613 Million cell updates/sec	aactaattctttaa 2121		lues	55026578																				ed by chance to have a	stribution.			516 Homc	2 K L
GenCore version 5.1 Copyright (c) 1993 - 2004 Com	OM nucleic - nucleic search, using sw model	Run on: September 2, 2004, 14:25:29 ; (wit) (wit) 1698	Title: US-10-063-731-117 Perfect score: 2121 Sequence: 1 gagctccctcaggagcgcg	Scoring table: IDENTITY_NUC Gapop 10.0 , Gapext 1.0	Searched: 27513289 seqs, 14931090276 residue	Total number of hits satisfying chosen parameters:	Minimum DB seq length: 0 Maximum DB seq length: 200000000	Post-processing: Minimum Match 0% Maximum March 100%	first	Database: EST:* 1: em estba:*		E E	# E	em_htc:*	•	11: gb_htc:* 12: gb_est3:*	gb_est4	, e, e		em_gas_tiiv	21: em_gss_fun:* 22: em_gss_mam:*	e e	em_gss_rod: em_gss_phg:	a 8	g G	1. No. is the number of res re greater than or equal to	of the	\$ \$	Result No. Score Match Length DB ID	786 37.1 786 29	2 785.2 37.0 1751 11 AK033657 3 694.2 32.7 975 13 BU838449 4 674.2 31.8 679 12 BM791434

BG547464 602574890
BM989992 UI-H-DIO-CF110345 Shultzomi
BM759274 K-EST0039
AY402518 Mus muscu
AY402518 Mus muscu
AY402518 Pan krogl
BQ016897 UI-H-DIO-B1823718 603040838
CB462343 722418 MAB98945 K-EST0013
BM837765 K-EST0013
BM837765 K-EST0013
BM837765 K-EST0013
BM837165 K-EST0004
BM991457 K-EST0004
BM991457 K-EST0004
BM991459 K-EST00013
BM788945 K-EST00013
BM788945 K-EST00013
BM788945 K-EST00013
BM7889469 K-EST00013
BM819706 WA3-S00013
BM819706 WA3-S00010
BW819706 WA3-S00010
BW819706 WA3-S00010
BW819706 WA3-S00010
BW817385 QVO-ST024
BM817385 QVO-ST024
BM817385 BM81758 BM817583 BM

90 ATGTCCACCACCACATGCCAAGTGGTGGCGTTCCTCCTGTCCTCCTGGGCGGC 149 1 ATGTCCACCACCACATGCCAAGTGGTGGCGTTCCTCCTGTCCTCGGGGCGCGGC 60 1 ATGTCCACCACCACGCAATGCCAAGTGGTGGCTTCCTCCTGTCCTGGGGCGCGGC 60 1 ATGTCCACCACCACGGAATGGTGGAGCTTCCTCTGTCCTTCCT		870 781 781 111 86 AK AK AK AK AK AK AK AK AK AK AK AK AK
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	6 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	CY Db RESULT 2 AK033657 LOCUS DEFINITION ACCESSION VERSION VER
		· ·
CG734227 RP11-224F AQ491423 RPCI-11-2 AQ665179 HS 5344 B BB937032 PM3-SN002 AG042723 Pan trog1 BX485530 DKFZp686I AQ346241 RPCI11-11 AG114100 Pan trog1 AV376479 AV376479 BF037410 601460777 BU740001 UI-E-E00-AQ664011 HS 2277 B AQ422183 RPCI-11-2 AQ015273 Homo sapi AQ780966 HS 3138 B H75272 Yu07901.x1 B82626 RPCI11-17C1 AQ546155 CITB1-R1-BF677863 602085377 AA859001 UI-R-A0-b AQ626520 CITBI-R1-	lir, IPT, Hommas, Hom, FJ., -chir	, Lu, F., Murphy, B., , T.J., Sninsky, J.J. , 45 West Gude Driv nomic exons and ord nomic exons and ord , Length 786; , Length 786; 53; 0; Indels 0; G
819 29 CG734227 664 28 AQ491423 358 28 AQ665179 185 10 BE937032 654 29 AG042723 656 13 BX485530 685 29 AG187749 630 28 AQ346241 700 29 AG114100 711 9 AV376479 720 10 BF037410 527 13 BU740001 445 28 AQ664011 629 28 AQ66601 745 29 AG015273 750 29 AG015273	T86 bp CLDN18 gene, VIRTU Ny sequence. II:39758502 (human) tazoa; Chordata; C heria; Primates; C O 786) Ilanowski,S., Niels nnenbaum,D.M., Cive Wang,G., Zheng,X.H ad Cargill,M. nneutral evolution (5652), 1960-1963 (Tanenbaum, D.M., Civello, D., Wang, G., Zheng, X.H., Whi and Cargill, M. ission 16-NOV-2003) Celera Genomi MD 20850, USA ce was made by sequencing on alignment. Oation/Qualifiers .786 rganism="Homo sapiens" toll type="genomic DNA" b_xref="taxon:9606" .>786 inca = "CLDN18" ocus_tag="HCM1250" 37.1%; Score 786; DB 100.0%; Pred. No. 6.16 vative 0; Mismatches
8 8 2 2 2 2 2 2 2 2 8 8 2 2 2 2 2 2 2 2	AY402516 Homo sapiens genomic surve AY402516 AY402516 AY402516.1 GSS. Homo sapiens Homo sapiens Homo sapiens Eukaryota; Me Mammalia; Euk I (bases 1 t Clark, A.G., G Todd, M.A., Ta Ferriera, S., Adams, M.D. an Inferring nor gene trios Science 302 (14671302 2 (bases 1 t Clark, A.G., G	dd, M.A rriera ams, M.J rect Si bmitte ckvillis seq em base em base imilar
C C C C C C C C C C C C C C C C C C C	RESULT 1 AY402516 LOCUS DEFINITION ACCESSION VERSION VERSION VERSION VERSION VERSION THTLE JOURNAL PUBMED REFERENCE AUTHORS AUTHORS	TOTLE Ad Ad TITLE Di JOURNAL SU COMMENT Th th FEATURES SOURCE GENE GENE GENE ATCH BEST LOCAL SHATCH BEST LOCAL SATCH STACK BEST LOCAL SATCH STACK SATCH SATC

```
AACAAGAAGATATACGATGGAGGTGCCCGCACAGAGGACGAGGTACAATCTTATCCTTCC
                                                                                                                                                                                                                                                                                                                                                                                           Score 785.2; DB 11;
Pred. No. 8.2e-153;
0; Mismatches 418;
                        /tissue_type="cecum"
/clone_lib="RIKGN full-length er
/dev_stage="adult"
54. .848
/note="unnamed protein product;
(SPTR|Q91ZZO, evidence: FASTY, {
match=792}
                                                                                                        | protein product;
evidence: FASTY,
                                                                                                                                                                                                                                                                                                                                                                                             37.0%;
ilarity 72.4%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Simi
Matches 1225;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  591
                                                                                    CDS
                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ⋩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              υb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                      Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishino, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. RIKEN integrated sequence analysis (RISA) system--384-format genome Res. 10 (11), 1757-1771 (2000)

E 20530913

D 11076861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ine Fanior Consortium and the Kirch Genome Exploration Kesearch Group Phase I & II Team.

Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length CDNAs

Nature 420, 563-573 (2002)

6 (bases 1 to 1751)

8 Adachi,J., Aizawa,K., Akimura,T., Hara,A., Hashizume,W.,

Hayashida,K., Hayatu,N., Hiramoto,K., Hiraoka,T., Hirozane,T.,

Hori,F., Imotani,K., Ishii,Y., Kondo,S., Konno,H., Kouda,M.,

Katoh,H., Kawai,J., Kojima,Y., Kondo,S., Konno,H., Kouda,M.,

Koya,S., Kurihara,C., Matsuyama,T., Miyazaki,R., Ohno,M., Ohsato,N.,

Nakamura,M., Nishi,K., Nomura,K., Numazaki,R., Ohno,M., Ohsato,N.,

Sano,H., Sasaki,D., Shibata,K., Shinagawa,A., Shiraki,T.,

Sogabe,Y., Tanaka,T., Tomaru,A., Takahashi,F., Takaku-Akahira,S.,

Takeda,Y., Tanaka,T., Tomaru,A., Toya,T., Yasunishi,A.,

Direct Submission

Submitted (16-JUL-2001) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (16-JUL-2001) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216) cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues.
                                                                                                                                                    genea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Consortium and the RIKEN Genome Exploration Research
                                                                            Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K., Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ΙI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a full-length mouse cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       prepare mouse tissues.
Please visit our web site for further details.
URL:http://genome.gsc.riken.go.jp/.
URL:http://fantom.gsc.riken.go.jp/.
Location/Qualifiers
1. 1751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The RIKEN Genome Exploration Research Group FANTOM Consortium. Functional annotation of a full-length mouse Nature 409, 685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/6J"
/db_xref="FANTOM_DB:9130209K06"
/db_xref="MGI:2397735"
/db_xref="taxon:10090"
/clone="9130209K06"
    (1999)
 Meth. Enzymol. 303, 19-44
99279253
10349636
                                                                                                                                         prepare full-
Genome Res. 1
20499374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The FANTOM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                            JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
```

```
/codon_start=1
/protein_id="BAC28412.1"
/protein_id="EAC28412.1"
/db_xref="G1:26329347"
/translation="MSVTACQGLGFVVSLIGFAGIIAATCMDQWSTQDLYNNPVTAVF
NYQGLWRSCVRESSGFTECRGYFTLLGLPAMLQAVRALMIVGIVLGVIGILVSIFALK
CIRIGSMDDSAKAKWTLTSGILFIISGISAIIGVSVFANMLVTNFWMSTANMYSGMGG
MGGWVQTVQTRYTFGAALFVGWVAGGLTLIGGVMMCIACRGLTPDDSNFKAVSYHASG
QNVAYRPGGFKASTGFGSNTRNKKIYDGGARTEDDEQSHPTKYDYV"
cDNA library'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCATGTCCACCACACATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGGCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>Arcardrogangaccraccaesecrresesirreresidarcrearcaerrace</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGAGCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCCATCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGAGCCCTGATGATCGTGGGCATTGTTCTGGGGGTCATCGGTATCCTCGTGTCCATCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCCTGAAGTGCATTCGCATTGGTAGCATGGATGACTCTGCCAAGGCCAAGATGACTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTICIGGGAICTIGITCAICAICTCCGGCAICAGIGCAAICATIGGIGIGICIGITT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCATGGGTGGGATGGTGCAGACTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCTGCATCGCGGCCACCGGGATGGACATGTGGAGCACCCCAGGACCTGTACGACAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCACCTCCGTGTTCCAGTACGAAGGGCTCTGGAGGAGCTGCGTGAGGCAGAGTTCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCAACATGCTGGTGACTTCTGGATGTCCACAGCTAACATGTACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCAIGGGGGCAIGGIGCAGACCGIICAGACCAGGIACACCTIIGGIGCAGCICCTGIIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGGGCTGGGTCGCTGGAGGCCTCACACTAATTGGGGGGTGTGATGATGTGCATCGCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGGGCCTGGCACCAGAAGAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGTTGCCTACAAGCCTGGAGGCTTCAAGGCCCAGCACTGGCTTTGGGTCCAACACAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATGTTGCCTACAGGCCTGGAGGCTTTAAGGCCAGCACTGGCTTTGGGTCCAACACACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCCTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAACATGACACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCICCGGGAICAIGITCAITGICICACAGGICTITGIGCAAITGCIGGAGIGICIGIGITI
                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                   ; CLAUDIN-18A2.1
99.6%ID, 100%length
                                                                                                                                                                                                                                                                                                                                                                                      1751;
                                                                                                                                                                                                                                                                                                                                                                                                                               49;
                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
enriched
```

3 1

Sep

Fri

```
BU838449.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S:
Matches 852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                 ORGANISM
                                                                                                                         REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                    KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1715
                                                                                                                                                                                                                                                                                                                                                                                          1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2484
                                                                                                                                                                                                                                                                                                                                                1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1612
                                                                                                                              969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ---criccrogracinalial concreated contracted 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1556 TTTCTGTCGCGGGTCAGAAATTGTCCCTAGATGAATGAGAAA---ATTATTTTTTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCTAGTCAATAAACCCATTGATGATCTATTTCCCAGCTT-ATCCCCAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCAACTTGGC----TAGTAATAACACTTACTGAAGAAGAAGAATAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAACCAAAGTCATTTTCAGTTTGAGGCAACCAAACCTTTCTACTGCTGTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cresceacadraritrica-agaadscaagesagestrerestres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTAAATATAGTTAAAATAAATAATGTTTTAGTAAAATGATACACTATCTCTGT
 AGATCTACGATGGGGGTGCCCGCACAGAAGACGATGAACAGTCTCATCCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                               1367 GAAAGATAGTTGTGTTTCCCCCAGCCAGTCATCTGAGTCCCCCTATGTGGGTGATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTATTACAGCAACACCATTCTAGGAGTTTCCTGAGCTCTCCACTGGAGTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1596 cigágicciaggrafagrafararaaragrafararragcaaacggrifiggraficicagr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAATAGCCTCACCCCTACATGTGGATAGAAGGAAATGAAAAAATAATTGCTTTGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   950 reacarcreaaagrregraaagccrearrrrcarccaraggaggcragacagrerregc
                                                                                                                                                                                                                                                                                                    CICA-GICICIGICITCIAAAIAIICCACCAIAAAACAGCIGAGIIA---IITAIGAAIIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cregreargeaarceaartreacreacaacraaracrrraaresrrragaaaacrrre
                                             AAGCACGACTATGTGAATGCTCTAAGACCTCTCAGCACGGGGGGAAGAAACTCCC----
                                                                                                                               GAGCTCACCCAAAAAACAAGGAGATCCCATCTAGATTTCTTCTTGCTTTTGAC
                                                                                                                                                                      891 ccaagaagagcrcacc-caaagcaacgagagrcraccrrcrrcrrgrrgarrraac
                                                                                                                                                                                                                                                                                                                                             GAGGCTATAGCTCACATTTTCAATCCTCTATTTCTTTTTTAAATATAACT--TTCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAAGGAAAGACTCCAAAGATGTTATTTTCTGCTGTTTGAATTTTGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTIGI-AAICICICCAGCCCAIGAICICGGITTICITACACIGIGAICITAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ||| ||||||||
TGATTCCAGCAAGGCCCTTCCAGAGCTTTCCACTA-
                                                                                                                                                                                                                   TCACAGCTGGAAGTTAGAAAAGCCTCGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCTATATGGTA 1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGTTAC
                                                                                                                                 ----GGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1204 CCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACATTA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAATTT
                                                                                                                               914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1656
                                                                                                                                                                                                                                                                                                      1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1377
                                             828
                                                                                     831
                                                                                                                                                                                                                  970
                                                                                                                                                                                                                                                                                                                                                                                          1086
```

```
/tissue_type="dorsal root ganglia"
/dev_stage="adult, 36 yr"
/lab_host="bHl0B"
/lab_host="DHl0B"
/clone_lib="Lupski dorsal root ganglion"
/clone_lib="Lupski dorsal root ganglion"
/note="Vector: pCMV-SPORT6 (Life Technologies); Site_1:
NotI; Site 2: Sall; cDNA made by oligo-dT priming.
Directionally cloned using the following adaptors:
5'-TCGACCCACGCGTCCG-3' and
5'-GACTAGTTCTAGATCGCGAGCGCCCCCT(15)-3'. Size selected >
1 kb for average insert length 1.7 kb. This is a primary
library, non-amplified. Library constructed by Life
Technologies and donated by J. Lupski, M.D./Ph.D. (Baylor
College of Medicine) and is available through Life
Technologies."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 380
                                            9
                                                                        Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGGCCGGCTGCATCGCGGCCACCGGGATGTGGAGCACCCCAGGACCTGTACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AACCCCGTCACCTCCGTGTTCCAGTACGAAGGCTCTGGAGGAGCTGCGTGAGGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCTTTGCCCTGAAATGCATCCGCATTGGCAGCCATGGAGGACTCTGCCAAAGCCAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAGGCTTCACCGAATGCAGGCCCTATTTCACCATCCTGGGACTTCCAGCCATGCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCAGGCTTCACCGAATGCAGGCCCTATTTCACCATCCTGGGACTTCCAGCCATGCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>ecagreceaecertearearearegearecrecreesrecearrescerecrecresiante</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCAGGATCATGTCCACCACCACCATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AACCCCGTCACCTCCGTGTTCCAGTACGAAGGCTCTGGAGGAGGTGCGTGAGGCAGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCAGTGCGAGCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 975;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ch 32.7%; Score 694.2; DB 13; Il Similarity 86.4%; Pred. No. 7.5e-134; 852; Conservative 0; Mismatches 14;
                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6177081"
/sex="male"
GI:24022844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      捛
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

500

441 ACACTGACCTCCGGGATCATGTTCATTGTCTCCAGGTCTTTGTGCAATTGCTGGAGTGTCT

975 bp mRNA linear EST 16-OCT-2002 al 23082 Lupski dorsal root ganglion Homo sapiens CDNA GE:6177081 5', mRNA sequence.

BUB38449 AGENCOURT clone IMAC BUB38449

ACCESSION

RESULT 3 BU838449 LOCUS DEFINITION Ŋ

Fri

```
541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           장염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      $ <del>8</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EM791434 679 bp mRNA linear EST 05-MAR-2002 mRNA sequence.

MRNA sequence.

MRNA sequence.

MRN9 sequence.

MRN9 sequence.

MRN9 sequence.

MRN91434.1 GI:19139666

EST. Homo sapiens (human)

ISM Homo sapiens (human)

IND Homo sapiens (human)

ISM Homo 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1039
                                                                                                                                                                                                                                                                                                                              800
                                                                                                                                                                                                                                                                                                                                                                                                  860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                               542
                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                          screeaeeccrcacacraarreeeeercrearearerecarceccrecee
                                                                                                                                                                                                                                                                                 AGCCTGGAGGCTTCAAGGCCAGCACTGGCTTTGGGTCCAACACAAAAAC
                                                                                                                                                                                                                                                                                                                                                 AAGAAGATATACGATGGAGGTGCCCGCACAGAGGACGAGGTACAATCTTATCCTTCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                    TCACCCAAAAAACCAAGGAGATCCCATCTAGATTT-CTTCTTGCTTTTGACTCACAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGTTAGAAAAGCCTCGATTTCATCTTTGGAGGCCCAAATGGTCTTAGCCTCAGTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -- CAGGTACACATTTGGTGCGGCTCTGTTCGTG
                                                                                                                                                                                                                                                              CAGAAGAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACGACTATGTGTAATGCTCTAAGACCTCTCAGCACGGCGGGAAGAAACTCCCGGAGAGC
                                                      501 GTGTTTGCCAACATGCTGGTGACTAACTTCTGGATGTCCACAGGCTAACATGTACACGGG
                                                                                                                         ATGGGTGGGATGGTGCAGACTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TATTCCACCATAAAACA 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rarrececeaeraaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCTCTAAAT
                                                                                                                                                                                            GCTGGGTCC
361 ACACTGACC
                                                                                                                                                                                                                               GGCTGGGTC
                                                                                                                                                                                                                                                                                               GGCCTGGCA
                                                                                                                                                                                                                                                                                                                                                                    GTTGCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGTTAGAA
                                                                                                                                                                                                                                                              GGCCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACGACTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             782
                                                                                                                           561
                                                                                                                                                                                                                              423
                                                                                                                                                                                                                                                                                               483
                                                                                                                                                                                                                                                                                                                                                                                                    801
                                                                                                                                                                                                                                                                                                                                                                                                                                   603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1040
                                                                                                                                                                                                                                                                                                                                                                  543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                842
                                                                                                                                                                                            621
                                                                                                                                                                                                                                                               681
                                                                                         392
                                                                                                                                                           392
                                                                                                                                                                                                                                                                                                                                  741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 4
BM791434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                     ద
                                                                                                                                                                                           ð
                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                 日
                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                     8
                                                                                                                         õ
                                                                                                                                                                                                                                                               ð
```

```
/tissue_type="Stomach"
/cell_type="Floating aggregates"
/cell_line="SNU-520"
/lab_host="Top10F'"
/clone_lib="S21SNU520"
/lab_host="Top10F'"
/clone_lib="S21SNU520"
/note="Organ: Stomach; Vector: pTZ18RP1; Site_1: EcoRI;
Site_2: Not1; The poly (A) + RNA was dephosphorylated with
bacterial alkaline phosphatase (BAP) and then decapped
with tabacco acid pyrophosphatase (TAP). The decapped
with tabacco acid pyrophosphatase (TAP). The decapped
intact mRNA was ligated with DNA-RNA linker including EcoR
I site by treatment of T4 RNA ligase and the first strand
cDNA was synthesized from oligo dT-selected mRNA by
priming with dT-tailed vector. The dT-tailed vector was
adjusted to have about 60nt. The cDNA vector was
circularized with E. coli DNA ligase after digestion of
EcoRI which site is also included in vector. An RNA strand
converted to a DNA strand by Okayama-Berg method. The
obtained cDNA vectors were used for transformation of
competent cells E. coli Top10F' by electroporation method.
The cDNA libraries constructed by this method are
full-length enriched cDNA library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITCTICTICCTTTTGACTCACCTGGAAGTTAGAAAAGCCTCGATTTCATCTTTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTAAAAGTTACCAAACCAAAGTCATTTTCAGTTTGAGGCAACCAAACCTTTCTACTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TIGACATCITCITATIACAGCAACACCATICIAGGAGITICCIGAGCICICCACTGGAGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TIGACATCTTCTTATTACAGCAACACCATTCTAGGAGTTTCCTGAGCTCTCCACTGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTAITTAIGAATTAGAGGCTAITAGCTCACATTTTCAATCCTCTAITTCTTTTAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTATTTATGAATTAGAGGCTATAGCTCACATTTTCAATCCTCTATTTCTTTTTTAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAATTITGTCTCCCCACCCCCAACTTGGCTAGTAATAAACACTTACTGAAGAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAAGAGAAAGATATTTGTAATCTCTCCAGCCCATGATCTCGGTTTTTCTTACACTGTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 31.8%; Score 674.2; DB 12; Length 679; Best Local Similarity 99.6%; Pred. No. 1.1e-129; Matches 676; Conservative 0; Mismatches 3; Indels 0;
```

240

1386

360

420

1446

480

1506

1566

```
Homo Bapiens (numan, homo Bapiens (numan, homo Bapiens (numan, homo Bapiens Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 743)

1 (bases 1 to 743)

1 (Naloral Cancer Institute, Cancer Genome Anatomy Project (CGAP), National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index

1 Unpublished (1997)

1 Contact: Robert Strausberg, Ph.D.

2 Email: cgapbs-r@mail.nih.gov

2 Contact: Robert Strausberg, Ph.D.

3 Email: cgapbs-r@mail.nih.gov

4 Tissue Procurement: Dr. Jose Mercuende

5 CDNA Library Preparation: Dr. M. Bento Soares, University of Iowa

6 CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa

7 Clone Distribution: Clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov

7 The following repetitive elements were found in this cDNA sequence: 475-536, >AT rich#Low_complexity (matched compliment)

8 Seq primer: M13 FORWARD

POLYA=Yes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BM989992 743 bp mRNA linear EST 17-JUN-2002 UI-H-DIO-ato-h-11-0-UI.81 NCI_CGAP_DIO Homo sapiens cDNA clone IMAGE:5862202 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTCAGAAATTGTCCCTAGATGAAATGAAAATTATTTTTTTAATTTAAGTCCTAAATA 1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTGAAAGGAAAGAGTAGACCCAAAGATGTTATTTTTTTGCTGTTTGAATTTTTGTCTCCCC
                                                                                                                                                                                                                                                                                                                   ACCCCCAACTIGGCTAGTAATAAACACTTACTGAAGAAGAAGAAGAATAAGAGAAAGATATT
                                                                                                                                                                                                                                                                                              TGTAATCTCTCCCAGCCCATGATCTCGGTTTTCTTACACTGTGATCTTAAAAGTTACCAAA
                                                                                                                                                                                                                                                                                                                                                                               CCAAAGTCATTTTCAGTTTGAGGCAACCAAACCTTTCTACTGCTGTTGACATCTTCTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCCTCCTAGTCAATAAACCCATTGATGATCTATTTCCCAGCTTATCCCCAAGAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                       CCAAAGTCATTTTCAGTTTGAGGCAACCAAACCTTTCTACTGCTGTTGACATCTTCTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="Lung Focal Fibrosis"
/dev_stage="Adult"
/lab_host="DH10B (Life Technologies)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:5862202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .743
/organism="Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAGTTAAATTAAATAA 1642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BM989992
BM989992.1 GI:19709381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660 ragrrahaharah
                                                                                        241
                                                                                                                                                                     301
                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                               1327
                                                                                                                                                                                                                                                                                              1387
                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                              1207
                                                                                                                               1267
                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 6
BM989992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                      В
                                                                                                                                                               a
                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                  g
                                              ð
                                                                                                                                ઠ
                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                              ਨੋ
                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:4702823"
/lab_host="DH10B (T1 phage-resistant)"
/clone lib="NIH MGC 77"
/note="Organ: lung; Vector: pDNR-LIB (Clontech); Site_1:
Sfil (ggccgcctcggcc); Site_2: Sfil (ggccattatggcc); 5' and
Sfil (ggccgcctcggcc); Site_2: Sfil (ggccattatggcc); 5' and
s' adaptors were used in cloning as follows: 5' adaptor
sequence: 5'-CACGGCCATATGGCC-3' and 3' adaptor sequence:
5'-ATTCTAGAGGCGAGGCGAGAGTGGT-4T(30)BN-3' (where B = A,
C, or G and N = A, C, G, or T). Average insert size 1.9
kb (range 0.5-4.0 kb): 12/15 colonies contained inserts
by PCR. This library was enriched for full-length clones
and was constructed by Clontech Laboratories (Palo Alto,
CA). Note: this is a NIH_MGC Library."
                                                                                                                                                                                                    BG547464
602574890F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4702823 5',
mRNA sequence.
BG547464
BG547464.1 GI:13546129
EST.
Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostom:;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1206
780
                                                                                                                                                                                                                                                                                                                                                                                                          E NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: CLONTECH Laboratories, Inc.

CDNA Library Preparation: CLONTECH Laboratories, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLCM1540 row: d column: 24

High quality sequence stop: 675.

Location/Qualifiers

rce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACTCACAGCTGGAAGTTAGAAAAGCCTCGATTTCATCTTTGGAGAGGCCAAATGGTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCCTCAGTCTCTGTCTCTAAATATTCCACCATAAAACAGCTGAGTTATTATGAATTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .<del>.</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 31.3%; Score 664; DB 12; Length 675; Best Local Similarity 99.9%; Pred. No. 1.5e-127; Matches 675; Conservative 0; Mismatches 0; Indels
                                                         AGGCTAT
                                                              1612
                        601
                                                                                                     199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                  RESULT 5
BG547464
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
```

```
Shultzomica03596 Rat lung airway and parenchyma cDNA libraries Rattus norvegicus cDNA clone Contig3181 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /tissue_type="airway or parenchyma"
/dev_stage="adult"
/clone_lib="Rat_lung airway and parenchyma cDNA libraries"
/note="Organ: lung; Vector: pGEM-11Zf(-); Site_1: Eco_RI;
Site_2: Not_I; mRNA was isolated from microdissected rat_lung_airways and parenchyma tissues."
                                                                                                                                                                                EST.
Rattus norvegicus
Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalía; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                             E l'bases 1 to 1138)
Shultz,M.A., Zhang,L., Gu,Y.-Z., Baker,G.L., Fannuchi,M.V.,
Padua,A.M., Gurske,W.A., Morin,D., Penn,S.G., Jovanovich,S.B.,
Plopper,C.G. and Buckpitt,A.R.
Gene Expression Analysis in Response to Lung Toxicants: I.
Sequencing and Microarray Development
L Unpublished (2003)
Contact: Shultz MA
Dept. of Molecular Biosciences, School of Veterinary Medicine
University of California, Davis
1311 Haring Hall, One Shields Avenue, Davis, CA 95616, USA
Tel: 530 752 4698
Email: mashultz@ucdavis.edu
Average Phred score is 20 or better. All poor quality data (Phred
20) and vector/linker sequence has been removed.
High quality sequence stop: 1138.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGGCTGGCCGCCTGCGTCGCGCCCACCGGGATGGACATGTGGAGCACCCCAGGACCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        197 CGACAACCCCCGTCACCTCCGTGTTCCAGTACGAAGGGCTCTGGAGGAGCTGCGTGAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGTCCATCTTCGCCCTGAAGTGCATTCGCATTGGCAGCAGGATGACTCTGCCAAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACATGACACTGACCTCCGGGATCATGTTCATTGTCTCAGGTCTTTGTGCAATTGCTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGTTCAGGCTTCACCGAATGCAGGCCCTATTTCACCATCCTGGGAC-TTCCAGCCATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     recadecadececricardarcerasecarecricesersecarrocarrocerse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATCCATCTTTGCCCTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 647.2; DB 14;
Pred. No. 4.4e-124;
0; Mismatches 213;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1. .1138
/organism="Rattus norvegicus"
/mol_type="mRNA"
/strain="Sprague-Dawley"
/db_xref="taxon:10116"
/clone="Contig3181"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                    CF110345.1 GI:33166111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 30.5%;
Best Local Similarity 78.4%;
Matches 844; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bource
                                                                                                                       ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
     RESULT 7
CF110345
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>අ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
/clone_lib="NCI_CGAP_DIO"
/note="Organ: Lung; Vector: pT7T3-Pac (Pharmacia) with a modified polylinker; Site_1: EcoR I; Site_2: Not I;
NCI_CGAP_DIO is a cDNA library containing the following tissue(s): A pool of Lung Focal Fibrosis. The library was constructed according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. First strand cDNA synthesis was primed with an oligo-dT primer containing a Not I site. Double stranded cDNA was ligated to an EcoR I adaptor, digested with Not I, and cloned directionally into pT7T3-Pac vector. The oligonucleotide used to prime the synthesis of first-strand cDNA contains a library tag sequence that is located between the Not I site and the (dT)18 tail. The sequence tag for this library is ATACGCGGTC.

TAG_ISSUE=lung with fibrosis
TAG_LIB=UI-H-DIO
TAG_SEQ=ATACGCGGTC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCTTTGACATTGTCTATATGGTACTTTGTAAAGTCATGCTTAAGTACAAATTCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 TTTGATGATTTAGACAGACTCCCCCTCTTCCTCCTAGTCATAAACCCATTGATGATCATTAGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGATCATAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1421 ACACTGTGATCTTAAAAGTTACCAAACCAAAGTCATTTTCAGTTTGAGGCAACCAAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IGTTGACATCTTCTTATTACAGCAACACCATTCTAGGAGTTTCCTGAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTGAATTTTGTCTCCCCACCCCCAACTTGGCTAGTAATAAACACTTACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGAATTTTGTCTCCCCACCCCCAACTTGGCTAGTAATAAACACTTACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241 AGAAGAAGCAATAAGAGAAAGATATTTGTAATCTCTCCAGCCCATGATCTCGGTTTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTTAAAAGTTACCAAACCAAAGTCATTTTCAGTTTGAGGCAACCAAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGTTGACATCTTCTTATTACAGCAACACCATTCTAGGAGTTTCCTGAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3TCCTCTTTCTGTCGCGCGTCAGAAATTGTCCCTAGATGAGAAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481 ATTITITIAATTTAAGTCCTAAATATAGTTAAAATAAATAATGTTTTAGTAAAATGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACTATCTCTGTGAAATAGCCTCACCCTACATGGGATAGAAGGAAATAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541 CACTATCTCTGTGAAATAGCCTCACCCCTACATGTGGATAGAAGGAAATGAAAAATAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 TITITITITITITITICIACICIGAIGAGAAIGIGGITITIAAICICICICICACAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>;</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 743;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1121 TTTTTTAAATATAACTTTCTACTCTGATGAGAAATGTGG7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 31.0%; Score 656.8; DB 12; Best Local Similarity 99.0%; Pred. No. 4.7e-126; Matches 661; Conservative 0; Mismatches 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATAAGAGAAAGATATTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCACTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACACTGTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGCTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAAGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8
```

(Phred

Ŋ

Gaps

19;

Indels

Length 1138;

256 133 315 193 375

73

```
/ Essample / Cell Lype="Epithelial" / Cell Line="SNU-601" / lab host="Top10F"" / Clone lib="S9SNU601" / Iab host="Top10F"" / Clone lib="S9SNU601" / Iab host="Top10F" / Clone lib="S9SNU601" / Iab host="Top10F" / Iab host="Top10F" / Clone lib="S9SNU601" / Iab host="Top10F" / Iab ho
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATAAACACTTACTGAAGAAGAAGCAATAAGAGAAAGATATTTGTAATCTCTCCAGCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 GATCTCGGTTTTCTTACACTGTGATCTTAAAAGTTACCAAACCAAAGTCATTTTCAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGITICCTGAGCTCTCCACTGGAGTCCTCTTTCTGTCGCGGGTCAGAAATTGTCCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCATTGATGATCTATTTCCCAGCTTATCCCCAAGAAAACTTTTGAAAGGAAAGAGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCATTGATGATGTTTTCCCCAGCTTATCCCCCAAGAAAACTTTTGAAAAGAAAAGAGTAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCAAAGATGTTATTTTCTGCTGTTTTGAATTTTTGTCTCCCCCACCCCAACTTGGCTAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCAAAGATGTTATTTTCTGCTGTTTGAATTTTTGTCTCCCCAACCCCCAACTTGGCTAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATAAACACTTACTGAAGAAGAAGCAATAAGAGAAAGATATTTGTAATCTCTCCGGCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATCTCGGTTTTCTTACACTGTGATCTTAAAAGTTACCAAACCAAAGTTATTCAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 680;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 29.4%; Score 623; DB 12; Length 6 Best Local Similarity 100.0%; Pred. No. 5.1e-119; Matches 623; Conservative 0; Mismatches 0; Indels
                                                                             1. .680
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="$9$NU601-22-E05"
/sex="M"
Email: yongsung@mail.kribb.re.kr
Plate: 22 row: E column: 05
High quality sequence stop: 680.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        du
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)

SM Homo sapiens

Homo sapiens

Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;

Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

I (bases 1 to 680)

S Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R., Oh,K.J., Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,H.S., Kim,S. and Kim,Y.S.

21C Frontier Korean EST Project 2001

L Unpublished (2002)

Contact: Kim YS

Genome Research Center

Korea Research Institute of Bioscience & Biotechnology

52 Eoeun-dong Yuseong-gu, Daejeon 305-333, South Korea

Tel: +82-42-860-4470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2.084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            680 bp mRNA linear EST 04-MAR-2002 S9SNU601 Homo sapiens cDNA clone S9SNU601-22-E05 5',
                                                                                                                                                                                        675
                                                                                                                                                                                                                                                                                 735
                                                                                                                                                                                                                                                                                                                                                                            795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 913
                                                                                                                                             493
                                                                                                                                                                                                                                                                                                                                613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      914 TIGGCCACA----CGTCTCTAAATACTCCCATCACAAAACAACCGAGTTACCATTTA--C 966
                                                  433
                                                                                                                                                                                                                                      553
                                                                                                                                                                                                                                                                                                                                                                                                                         673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCGTGGCCTGATCTGATGACCGCAACTTCAAAGCCGTGTCCTACCACGCTTCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   796 AAAACAAGAAGATATACGATGGAGGTGCCCGCACAGAGGACGAGGTACAATCTTATCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1085 AGAGGCTATAGCTCACATTTTCAATCCTCTATTTCTTTTTTAAATATAAACTTTCTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGTTAAGAGACCACCACCCTTCCCAATCCTCTTTTTTACCATAGTAAATC
                                                                                                                                                                                                                                                                                                                                                                                                     AAAATGTTGCCTACAAGCCTGGAGGCTTTAAGGCCAGCACTGGCTTTGGGTCCAACGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAACAAGAAGATATATGATGGGGGGGGGCCGCACAGAAGAAGATGAACAATCTCATCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACAGCTGGAAGTTAGAAAAGCCTCGATTTCATCTTTGGAGAGGCCCAAATGGTC
                                               rerererrireceaacarecregraaceaacrreregarereaceaceaceacareraea
                                                                                                                           CTGGGTCGCTGGAGGCCTCACTAATTGGGGGTGTGATGATGTGCATCGCCT
                                                                                                                                                                                                              TTGTGGGCTGGATCGCTGGAGGCCTCACTAATTGGAGGTGTGATGATGATGCATCGCTT
                                                                                                                                                                                                                                                                                                                                                                             IGGGTCCAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCGGAGAGCTCACCCAAAAAAAAAAAAAGAATCCCATCTAGATTTCTTGTTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   794 CCTTCCCCAAGGAAGCTCACCCCAAAGCAAGGAGATTCTACCTTGTTCCCTTGTTGCTT
                                                                                                GGGTGGGATGCTGCTGCTTCACACCAGGTACACATTTGGTGCGGCTCTGT
                                                                                                                                                                                                                                                                                   CCTGGCACCAGAAAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCC
                                                                                                                                                                                                                                                                                                                                                                             TGCCTACAAGCCTGGAGGCTTCAAGGCCAGCACTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GI:19088889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BM759274
K-EST0039301 S9
mRNA sequence.
BM759274
BM759274.1 GI:
                                                                                                                                                                                      TCGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TIGACTO
                                                                                                                                                                                                                                                                                 9555555
                                                                                                                                           GCGGCAT
                                                                                                                                                                                                                                                                                                                                                                            736 ACAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----CT
                                                                                                                                         434
                                                                                                                                                                                                                                                                                                                              554
                                                                                                                                                                                                                                                                                                                                                                                                                       614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1027
                                               374
                                                                                            556
                                                                                                                                                                                      919
                                                                                                                                                                                                                                    494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  965
                                                                                                                                                                                                                                                                               919
     496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 8
BM759274
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
```

유 상 유

1285

9

ö

Gaps

1345

120

1405

240

1465

300

1525

1645

420

1705

Qy 390 CTGAAATGCATCGCATTGGCAGCATGGAGGACTCTG	QY 510 AACATGCTGGTGACTAACTTCTGGATGTCCACAGGTA Db 421 AACATGCTGGTGACCAACTTCTGGATGTCCACAGCTAC QY 561 ATGGGTGGGATGGAGTGCTAGATTCTGGATGTACTACTAGTGCAGTACTACTAGTGCAGTACTACTAGTGCAGATGCAGTACTAGTGCAGATGCAGTACTAGTGCAGATACTAGTGCAGTACTAGTGCAGTACTAGTGCAGTACTAGTGCAGTACTAGTGCAGTACTAGTGCAGTACTAGTGCAGTACTAGTGCAGTACTACTAGTGCAGTACTAGTGTGTAGTGCAGTACTACTAGTGTGTATTGTGGTAGTGCAGTACTACTAATGTGGAGACTTCAAAGCCTTTAAAGTCTTCAAAGCCTTTTAAGTGCTTTAAGTGCTTTAAGTGCTTAAAGTCTTCAAAGCCTTTAAGTGCTTTAAGTGCTTTAAGTGCTTTAAGTGCTTTAAGTGCTTAAGTGCTTTAAGTGCTTTAAGTGCTTTAAGTGCTTTAAGTGCTTTAAGTGCTTTAAGTGCTTTAAGTTTAAGTGCTTTAAGTGCTTTAAGTGCTTTAAGTTTAAGTGCTTTAAGTGCTTTAAGTGCTTAAGTTTAAGTGTTTAAGTGCTTTAAGTGCTTTAAGTGCTTTAAGTGTTTAAGTGTTTAAGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTTAATGTGTAATGTGTTAATGTGTTAATGTGTTAATGTGTAATGTGTAATGTGTAATGTAATGTAATGTAATGTAATGTAATGTAATGTAATGTAATGTAATGTAATGTAATGTAATGTAATGTAATGTAATGTAATG	RESULT 10 AY402517 LOCUS DEFINITION Pan trogologytes CLDN18 gene, VIRTUAL TY GENOMIC SURVEY Sequence. AY402517.1 GI:39758503 KEYWONDS SOURCE ORGANISM Entroglogytes Chimpanzee) CRANTSM Entroglogytes Clark,A.G., Glanowski,S., Nielson,R., Todd,M.A., Tanenbaum,D.M., Civello,D.R. AUTHORS Clark,A.G., Glanowski,S., Nielson,R., Todd,M.A., Tanenbaum,D.M., Civello,D.R. AUTHORS TITLE Inferring nonneutral evolution from hu JOURNAL Science 302 (5652), 1960-1963 (2003) PUBBED AUTHORS Clark,A.G., Glanowski,S., Nielson,R., Todd,M.A., Tanenbaum,D.M., Civello,D.R. AUTHORS Clark,A.G., Glanowski,S., Nielson,R., Todd,M.A., Tanenbaum,D.M., Civello,D.R. AUTHORS TODA,M.A., Tanenbaum,D.M., Civello,D.R. Ferriera,S., Wang,G., Zheng,X.H., Whit Ferriera,S., Wang,G., Zheng,X.H., Whit Rockville, MD 20850, USA COMMENT This sequence was made by sequencing g them based on alignment. FEATURES Location/Qualifiers Location/Qualifiers //mol_type="genomic DNA" //mol_type="genomic DNA"
1706 AAATGAAAAATAATTGCTTTGACATTGTCTATATGGTACTTTGTAAAGTCATGCTTAAG 1765	AY402518 AY402518 Mus musculus CLDN18 gene, VIRTUAL TRANSCRIPT, partial sequence, genomic survey sequence. ACCESSION AY402518 AY4	This sequence was made by sequencing genomic exons and them based on alignment. Location/Qualifiers 1. Organism="Mus musculus"

```
617 bp DNA linear GSS 15-DEC-2003
s CLDN18 gene, VIRTUAL TRANSCRIPT, partial sequence,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BATGGAGGTGCCCGCACAGAGGACGAGGTACAATCTTATCCTTCCAAG 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                             509
                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                           560
                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                           620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .azoa; Chordata; Craniata; Vertebrata; Euteleostomi;
eria; Primates; Catarrhini; Hominidae; Pan.
617)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Journal, S., Nielson, R., Thomas, P., Kejariwal, A., Canowski, S., Nielson, D.R., Lu, F., Murphy, B., Rang, G., Zheng, X.H., White, T.J., Sninsky, J.J., I Cargill, M. Cargill
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NOV-2003) Celera Genomics, 45 West Gude Drive, 20850, USA was made by sequencing genomic exons and ordering alignment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of 17)
anowski, S., Nielson, R., Thomas, P., Kejariwal, A., nenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., ang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Cargill, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GRAGGCCTCACACTAATTGGGGGTGTGATGATGTGCATCGCCTGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCATTGGCAGCATGGAGGACTCTGCCAAAAGCCAACATGACACTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              652), 1960-1963 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        s (chimpanzee)
s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                :39758503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TA 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ||
TA 794
```

```
Query Match
Best Local Similarity
Matches 607; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              307
                                                                                                                                                                                                                                                                                                                                                                                                                          1102
                                                                                                                                                                                                                                                                                                                                                                                                                                           7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    367
                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ठ
                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   625 3', mRNA sequence.
                                                                                            318
                                                                                                                                378
                                                                                                                                                  120
                                                                                                                                                                      438
                                                                                                                                                                                      1.80
                                                                                                                                                                                                         498
                                                                                                                                                                                                                                                                                 618
                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                     678
                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                         738
                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                             798
                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                  828
                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 to 627)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    http://www.ncbi.nlm.nih.gov/ncicgap.
Cancer Institute, Cancer Genome Anatomy Project (CGAP)
                                                                                           CTTCACCGAATGCAGGCCCTATTTCACCATCCTGGGACTTCCAGCCATGCTGC
                                                                                                                              GCGAGCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTAT
                                                                                                                                                                  TGCCCTGAAATGCATCCGCATTGGCAGGACTCTGCCAAAAGCCAACA
                                                                                                                                                                              61 AGGCAGTGCGAGCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTAT
                                                                                                                                                                                                                CTGTGTTTGCCAACATGCTGACTAACTTCTGGATGTCCACAGCTAACATGTACACCG
                                                                                                                                                                                                                                                                               IGGGATGGTGCAGACTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTCG
                                                                                                                                                                                                                                                                                         301 GCATGGGTGGGATGGTGCAGACTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTCG
                                                                                                                                                                                                                                                                                                                   TGGGCTGGGTCGCTGGAGGCCTCACACTAATTGGGGGGTGTGATGTGCATCGCCTGCC
                                                                                                                                                                                                                                                                                                                             GTGTTGCCTACAAGCCTGGAGGCTTCAAGGCCAGCACTGGCTTTTGGGTCCAACACCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                     ACAAGAAGATATACGATGGGGGCCCGCACAGAGGACGAGGTACAATCTTATCCTTCCA
                                                                                                                                                                                                                                                                                                                                                      GGGGCCTGGCACCAGAAGAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACA
                                                                                                                                                                                                                                                                                                                                                                       GGGGCCTGGCACCANNNNNNNNNNNCTACAAAGCCGTTTCTTATCATGCCTCGGGCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                           ö
                                                        Length 617;
                                                                           IndelB
                                             ; DB 29;
8.2e-113;
                                                      Score 593.2; Pred. No. 8.2e-0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Robert Strausberg, Ph.D.
/db_xref="taxon:9598"
<1. .>617
/gene="CLDN18"
/locus_tag="HCM1250"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GI:19752174
                                                     28.0%;
ilarity 96.4%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; C
Mammalia; Eutheria; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTATGTGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ed (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 (bases 1
NCI-CGAP ht!
National Car
Tumor Gene
Unpublished
Contact: Rol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BQ016897
UI-H-DIO-au
IMAGE:5876;
BQ016897
BQ016897.1
EST.
                                                     Query Match
Best Local Similari
Matches 595; Cons
                                                                                        GTTCAGG
                                                                                                                           319 AGGCAGT
                                                                                                                                                                                                      TGACACT
                                                                                                                                                                                                                                                                               GCATGGG
                                                                                                                                                                                                                    TGACACT
                                                                                                                                                                 CCATCT
                                                                                                                                                                                                                                                            CTGTGTJ
                                                                                          259
                                                                                                                                                                 379
                                                                                                                                                                                   121
                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                         499
                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                      439
                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                              559
                                                                                                                                                                                                                                                                                                                                                                                                                             799
                                                                                                                                                                                                                                                                                                                   619
                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                       619
                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                           739
                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
BQ016897
LOCUS
DEFINITION
         gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
COMMENT
                                   ORIGIN
                                                                                                      d
                                                                                                                             8 6 8 6 8 6 8 6 8
                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                \delta
                                                                                                                                                                                                                                                                                                                                                                  a
```

```
1. .627
/ Organism="Homo sapiens"
/ Organism="Homo sapiens"
/ Mol_type="mRNA"
/ Mol_type="mRNA"
/ Lissue_type="Lung Focal Fibrosis"
/ Lissue_type="Lung Focal Fibrosis"
/ Lissue_type="Lung Focal Fibrosis"
/ Lab_host="DH10B (Life Technologies)"
/ Lab_host="DH10B (Life Technologies)"
/ Lab_host="DH10B (Life Technologies)"
/ Lone lib="NCI_CGAP_DIO"
/ Note="Organ: Lung; Vector: pT7T3-Pac (Pharmacia) with a modified polylinker; Site_1: EcoR I; Site_2: Not I;
/ NCI_CGAP_DIO is a cDNA library containing the following tissue(s): A pool of Lung Focal Fibrosis. The library was constructed according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. First strand cDNA Synthesis was primed with an oligo-dT primer containing a Not I site. Double stranded cDNA was ligated to an EcoR I adaptor, digested with Not I, and cloned directionally into pT7T3-Pac vector. The oligonucleotide used to prime the synthesis of first-strand cDNA contains a library tag sequence that is located between the Not I site and the (dT)18 tail. The sequence tag for this library is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          366
Tissue Procurement: Dr. M. Bento Soares, University of Iowa CDNA Library preparation: Dr. M. Bento Soares, University of Iowa CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa DNA Sequencing by: Dr. M. Bento Soares, University of Iowa Clone Distribution: Clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov The following repetitive elements were found in this cDNA sequence: 1-39, >AT_rich#Low_complexity (matched compliment) Seq primer: M13 FORWARD
POLYA=Yes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTAATCTCTCTCTCACATTTGATGATTTAGACAGACTCCCCCTCTTCCTCCTAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAAACCCATTGATGATCTATTTCCCAGCTTATCCCCAAGAAACTTTTGAAAGGAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAGACCCAAAGATGTTATTTTCTGCTGTTTGAATTTTGTCTCCCCCACCCCAACTTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTTATTTTTAATTTTTTTAAATATAAACTTTCTACTCTGATGAGGAATGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITAAICICICICICACATITIGAIGATITIAGACAGACICCCCCCTCTTCCTAGICAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAGACCCAAAGATGTTATTTTTGCTGCTGTTTTGAATTTTGTCTCCCCCACCCCAACTTTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTAATAAACACTTACTGAAGAAGAAGCAATAAGAGAAAGATATTTGTAATCTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCATGATCTCGGTTTTCTTACACTGTGATCTTAAAAGTTACCAAACCAAAGTCATTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GITTGAGGCAACCAATCTTTCTACTGCTGTTGACATCTTCTTATTACAGCAACACCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 627;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 588.2; DB 12; Lengthered. No. 8.9e-112;
0; Mismatches 13; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATACGCGGTC.
TAG_TISSUE=lung with fibrosis
TAG_LIB=UI-H-DIO
TAG_SEQ=ATACGCGGTC"
                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTTCAATCCTCTATTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27.7%;
ilarity 97.7%;
Conservative (
```

	301 GAGCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTTGGCCTCCTGGTATCCATCTTT 387 GCCCTGAAATGCATCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAACTAGCACT 446 GACCTCGGGATCATGTCTCATTGCTATGGCAATTGCTGCCAAAGCCAACTTTTTTTT	### SULT 13	DOURLE DE LALLES (COT) ORGANISM BOS taurus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; Bovidae; Bovinae; Bos. 1 (bases 1 to 681) ARJUTHOR Smith, T.P.L., Roberts, A.J., Echternkamp, S.E., Chitko-McKown, C.G., Wray, J.E. and Keele, J.W. TITLE A second set of bovine ESTS from pooled-tissue normalized libraries Unpublished (2003) CONTACT (Smith TPL USDA, ARS, US Meat Animal Research Center PO Box 166, Clay Center, NE 68933-0166, USA Tel: 402 762 4356 Fax: 402 762 4356 Fax: 402 762 4356 Fax: 402 762 4350 Email: smith@email.marc.usda.gov Single pass sequencing. Bases called with phred v0.020425.c and trimmed with the aid of the trim_alt option. Vector identified with cross match v0.990329. Plate: LAMB001 row: 1 column: 12 Seq primer: GTAAATACGACTCACTATAGGG. FEATURES FEATURES
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	4 2 4 2 4 2 4	KKAKARBIGER B & B &	2
	RESULT 12 B1823718 LOCUS LOCUS LOCUS G03040838F1 NIH_MGC_115 Homo sapiens CDNA clone IMACE:5181825 5', mRNA sequence. ACCESSION B1823718 B1823718 ACCESSION B1823718 B1823718 B1823718 B1823718.1 GI:15935268 KEYWORDS SOURCE Homo sapiens CNGANISM Homo sapiens CNGANISM Homo sapiens Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. REFERENCE 1 (bases 1 to 743) AUTHORS NIH-MGC http://mgc.nci.nih.gov/. TITLE JOURNAL COMMENT Email: cgapbs-r@mail.nih.gov Email: cgapbs-r@mail.nih.gov	Tissue Procurement: Life Technologies, Inc. CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Plate: LLAM11453 row: k column: 10 High quality sequence stop: 554. Location/Qualifiers source /organism="Homo sapiens" /mol_type="mRNA" /db_xref="taxon:9606" /clone="IMAGE:5181825" /lab host="MAGE:5181825" /lab host="MAGE:5181825"	/ Clone="Organ: pooled brain, lung, testis; Vector: pCMV-SPORT6; Site 1: Not1; Site 2: EcoRV (destroyed); RNA source anonymous pool of 6 male brains, age range 23-27; 1 male lung, age 27; and 1 male testis, age 69. Library is oligo-dr primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1:8 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code O21. Note: this is a NIH_MGC Library." Ouery Match Duery Match Est Local Similarity 95.4%; Pred. No. 3e-104; Matches 666; Conservative 0; Mismatches 20; Indels 12; Gaps 9; Avanation of this is a NIH_MGI Library." ON 28 CACACCTTCGGCAGGCAGGCAGCTTCTGCAGGGGGGGGGG

```
/ Jab_ nost="Toplor"
/ clone_lib="S9SNU601"
/ clone_lib="S9SNU601"
/ clone_lib="S9SNU601"
/ note="Organ: Stomach; Vector: pME18-FL3; Site_1: XhoI;
Site_2: XhoI; The poly (A) + RNA was dephosphorylated with bacterial alkaline phosphatase (BAP) and then decapped with tabacco acid pyrophosphatase (TAP). The decapped intact mRNA was ligated with DNA-RNA linker including Sfil site by treatment of T4 RNA ligase and the first strand cDNA was synthesized with Superscript II using Sfil oligo-dT primer. After first strand synthesis, RNA was degraded by NaOH treatment and cDNA was amplified by PCR reaction. The PCR products were digested with Sfil and cloned into DraIII- digested pME188-FL3 vector. The obtained cDNA vectors were used for transformation of competent cells E. coli ToplOF' by electroporation method. The cDNA libraries constructed by this method are full-length enriched cDNA library."
             Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 651)
Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R., Oh,K.J., Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,H.S., Kim,S. and Kim,Y.S.

21C Frontier Korean EST Project 2001
Unpublished (2002)
Contact: Kim YS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1270 GAAAGGAAAGAGTAGACCCAAAGATGTTATTTTCTGCTGTTTGAATTTTGTCTCCCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCAACACCATTCTAGGAGTTTCCTGAGCTCTCCACTGGAGTCCTCTTTCTGTCGCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 AGCAACACCATTCTAGGAGTTTCCTGAGCTCTCCACTGGAGTCCTCTTTCTGTCGCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCAACTTGGCTAGTAATAAACACTTACTGAAGAAGAAGCAATAAGAAAAGATATTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCAACTTGGCTAGTAATAAACACTTACTGAAGAAGAAGAAGAATAAGAGAAAGATATTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATCTCTCCAGCCCATGATCTCGGTTTTCTTACACTGTGATCTTAAAAAGTTACCAAAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGTCATTTTCAGTTTGAGGCAACCAAACCTTTCTACTGCTGTTGACATCTTTATTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAAGGAAAGAGTAGACCCAAAGATGTTATTTTCTGCTGTTTGAATTTTTGTCCCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 AATCTCTCCAGCCCATGATCTCGGTTTTTCTTACACTGTGATCTTAAAAGTTACCAAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                     Genome Research Center
Korea Research Institute of Bioscience & Biotechnology
52 Eoeun-dong Yuseong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4470
Fax: +82-42-860-4409
Email: yongsung@mail.kribb.re.kr
Plate: 77 row: B column: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 651;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24.5%; Score 519; DB 12; 100.0%; Pred. No. 2.2e-97; iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="S9SNU601-77-B11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /tissue_type="Ascites"
/cell_type="Epithelial"
/cell_line="SNU-601"
/lab_host="Top10F'"
                                                                                                                                                                                                                                                                                                                                       Plate: 77 row: B column: 11
High quality sequence stop: 651.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 100.
Matches 519; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1510
                SOURCE
ORGANISM
                                                                                      REFERENCE
AUTHORS
                                                                                                                                                               TITLE
JOURNAL
COMMENT
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ਨੇ
                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mRNA linear EST 06-MAR-2002
CDNA clone S9SNU601-77-B11 5',
                                                                                                                                                                                                                                                                                                                  2.03
                                                                                                                                                                                                                                                                                                                                                                                                                                 136
                                                                                                                                                                                                                                                                                                                                                                                          163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              703
                                                                                                                                                                                                                                                                                                                                                        9
    /organism="Bos taurus"
/mol_type="mRNA"
/db_xref="taxon:9913"
/tissue_type="pooled"
/lab_host="DH10B"
/clone_lib="MARC 6BOV"
/note="Vector: pcDNA3.1; Site_1: EcoRI; Site_2: NotI; Library made with RNA pooled from multiple tissues including liver, lung, hypothalamus, pituitary, and placenta/endometrium."
                                                                                                                                                                                                                                                                                                               44 GGAGGCGCCAGCTTCTCGCAGGCGAGGCGGCGGCCAGGATCATGTCCACCAC
                                                                                                                                                                                                                                                                                                                                                                                       104 AIGCCAAGIGGIGGCGIICCTICCIGICCAICCIGGGCIGGCCGGCTGCAICGCGCCAC
                                                                                                                                                                                                                                                                                                                                           17 GGCAGGACGAAGGCGGCAGCTGGGCGAGGACGGAGGCCGGGCCATGTCCACCACGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   317 GGGCATCGTCCTGAGTGTCATTGGCCTCCTGGTGGCCATCTTTGCCCTGAAGTGCCATCGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCAGGTCTTTGTGCAATTGCTGGAGTGTCTGTTTTGCCAACATGCTGGTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTACGAAGGCTCTGGAGGTGCGTGAGGCAGAGTTCAGGCTTCACCGAATGCAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197 GrandadGGCrcrGGCGCAGTrGCGTGCAGCAGAGCTCAGGCTTCACCGAGTGCCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            344 AGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCCATCTTTGCCCTGAAATGCATCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCAGACCAGGTACACATTTGGTGCGGCTCTGTTCGTGGGCTGGGTCGCTGGAGGCCTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           617 GCTGATTGGGGCGTGCTGATGTGCATCGCCTGCCGGGGTCTGGCCCCCGAGAAACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                  77 AIGCCAAGIGGTGGGCTTCCTGCTGTCCATCCTGGGCCTGGCCGGCTGCATCGTTGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACATGTGGAGCACCCAGGACCTGTACGACAACCCCGTCACCTCCGTGTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATTGGCAGCATGGAGGACTCTGCCAAAGCCAACATGACATGACCTCCGGGATCATGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAACTICTGGATGTCCACAGCTAACATGTACACGGCATGGGTGGTGGTGCAGACTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGGTGTGATGATGTGCATCGCCTGCCGGGGCCTGGCACCAGAAGAAACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCATCCTGGGACTTCCAGCCATGCTGCAGGCAGTGCGAGCCCTGATGGTCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 377 TATGGGCAACATGGATGACTCCGCCAAAGCCAAAATGACACTCACCTCCGGGATCATGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             497 TAACTICIGGAIGICCACAGCCAGCAIGITCACCAGCAIGGGGGGGAIGGIGCAGACCGI
                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                        Length 681
                                                                                                                                                                                                                                                                               87; Indels
                                                                                                                                                                                                                                          DB 14;
                                                                                                                                                                                                                                        Score 525.8; DB 1
Pred. No. 8.5e-99;
                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S9SNU601 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       651 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GI:19194174
                                                                                                                                                                                                                                       24.8%;
                                                                                                                                                                                                                                  Query Match
Best Local Similarity 86.98
Matches 578; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BM837765
K-EST0113903 S96
mRNA sequence.
BM837765
BM837765.1 GI:1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATTGIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           644 ACTAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 14
BM837765
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
S
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 8 8 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            තු
```

300

1389

120

1449

```
Indela
67;
Mismatches
 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GI:19139689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genome Research Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo gapiens (human)
 536; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BM791457
BM791457.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCA 689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCA 653
                                                                                                 147
                                                                                                                              111
                                                                                                                                                                                             171
                                                                                                                                                                                                                             267
                                                                                                                                                                                                                                                             231
                                                                                                                                                                                                                                                                                                                              291
                                                                                                                                                                                                                                                                                                                                                                                              351
                                                                                                                                                                                                                                                                                                                                                                                                                              447
                                                                                                                                                                                                                                                                                                                                                                                                                                                            411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           651
                                                                                                                                                                207
                                                                                                                                                                                                                                                                                             327
                                                                                                                                                                                                                                                                                                                                                             387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BM791457
                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                         QΩ
                                                                                                                                                              à
                                                                                                                                                                                         d
                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ਨੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                 BW788945

EW788945

S. EM788945

S. ENGRESSON-2-E11

S. ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-ENGRESSON-3-EN
                                                                 1689
                                 360
                                                                                                                                                TTAAAATAAATAATGTTTTAGTAAAATGATACACTATCTCTGTGAAATAGCCTCACCCCT
                                                                                             TTAAAATAAATAATGTTTTAGTAAAATGATACACTATCTCTGTGAAATAGCCTCACCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 653;
                                                                                                                                                                                              SCTTAAGTACAAATTCCATGAAAAGCTCAC 1788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 495.8; DB 12;
Pred. No. 1.5e-92;
                                                                                                                                                                                                               23.4%;
88.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
 CACAAATTG
                        CAGAAATTG
                                                                                                                                                                421 ACATGTGGA
                                                                                                                                                                                              TAAAGTCAT
                                                                                                                                                                                                                  |||||||||
TAAAGTCAT
                                                                                                                                ACATGTGGA
 1570
                                301
                                                                 1630
                                                                                                                                1690
                                                                                                                                                                                              1750
                                                                                                                                                                                                                              481
                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                              RESULT 15
BM788945
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                             g
                        g
                                                                 ò
                                                                                             a
                                                                                                                              ठ
                                                                                                                                                                                              ઠે
```

```
BM791457 549 bp mRNA linear EST 05-MAR-2002 K-EST0071468 S21SNU520 Homo sapiens cDNA clone S21SNU520-20-C12 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo mapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

1 (bases 1 to 549)
Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R., Oh,K.J., Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,H.S., Kim,S. and Kim,Y.S.

21C Frontier Korean EST Project 2001
Unpublished (2002)
Contact: Kim YS
o,
                                          146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  410
                                                                                                                                   206
                                                                                                                                                                                                                            266
                                                                                                                                                                                                                                                                     230
                                                                                                                                                                                                                                                                                                                                                              290
                                                                                                                                                                                                                                                                                                                                                                                                            386
                                                                                                                                                                                                                                                                                                                                                                                                                                                         350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51 Accardeccereacrecretradecridesirrerererranderrece
                                                                                                                                                                rrcacceaereccesecracrrcaccrecrecrescreccasecarecrescasecase
                                                                                                                                                                                                                                                                                                                                                                                                           CGAGCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCCATCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCCTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAACATGACATG
                                              87 ATCATGTCCACCACCACATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGGGCTGGCC
                                                                                                                                                                                                                            GTAACAGCTGTTTTCAACTACCAGGGGCTGTGGCGCTCCTGTGTCCGAGAGAGCTCTGGC
                                                                                                                                                                                                                                                                                                                   GCCCTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAACATGACACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCTCCGGGATCATGTTCATTGTCTCAGGTCTTTGTGCAATTGCTGGAGTGTCTGTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCAACATGCTGGTGACTTCTGGATGTCCACAGCTAACATGTACACGGCATGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGATGGTGCAGACTGTTCAGACCAGGTACACATTTTGGTGCGGCTCTTTCGTGGGCTCG
                                                                                                                                       GGCTGCATCGCGGCCACCGGGATGGACATGTGGAGCACCCAGGACCTGTACGACAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCAACATGCTGGTGACTTCTGGATGTCCACAGCTAACATGTACACGGCATGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGATGGTGCAGACTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTCGTGGGCTGG
 Gaps
 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Korea Research Institute of Bioscience & Biotechnology 52 Eoeun-dong Yuseong-gu, Daejeon 305-333, South Korea Tel: +82-42-860-4470
Fax: +82-42-860-4409
Email: yongsung@mail.kribb.re.kr
Plate: 20 row: C column: 12
```

```
BG538299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1263
                                                                  ORGANISM
                                                                                                               REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
 ACCESSION
               VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                          /clistue_type="Stomacn"
/cell_type="Stomacn"
/cell_line="SNU-520"
/lab_host="Topl0F""
/clone_lib="S21SNU520"
/lab_host="Topl0F""
/clone_lib="S21SNU520"
/note="Organ: Stomach; Vector: pTZ18RP1; Site_1: EcoRI;
Site_2: NotI; The poly (A) + RNA was dephosphorylated with
bacterial alkaline phosphatase (BAP) and then decapped
with tabacco acid pyrophosphatase (TAP). The decapped
intact mRNA was ligated with DNA-RNA linker including EcoR
I site by treatment of T4 RNA ligase and the first strand
cDNA was synthesized from oligo dT-selected mRNA by
priming with dT-tailed vector. The cDNA vector was
adjusted to have about 60nt. The cDNA vector was
circularized with E. coli DNA ligase after digestion of
EcoRI which site is also included in vector. An RNA strand
converted to a DNA strand by Okayama-Berg method. The
obtained cDNA vectors were used for transformation of
competent cells E. coli Topl0F' by electroporation method.
The cDNA libraries constructed by this method are
full-length enriched cDNA library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301 ATGATACACTATCTCTGTGAAATAGCCTCACCCCTACATGTGGATAGAAAGGAAATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1715 AATAATTGCTTTGACATTGTCTATATGGTACTTTGTAAAGTCATGCTTAAGTACAAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1355 TACTGAAGAAGCAATAAGAGAAAGATATTTGTAATCTCTCCAGCCCATGATCTCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1415 ITTCTTACACTGTGATCTTAAAAGTTACCAAACCAAAGTCATTTTCAGTTTTGAGGCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1655 ATGATACACTATCTCTGTGAAATAGCCTCACCCCTACATGTGGATAGAAGGAAATGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTTTGACATTGTCTATATGGTACTTTGTAAAGTCATGCTTAAGTACAAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TACTGAAGAAGAAGCAATAAGAGAAAGATATTTGTAATCTCTCCACCCATGATCTCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 AAACCTTTCTACTGCTGTTGACTTCTTTTTTACAGCAACACCATTCTAGAGTTTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTATTACAGCAACACCATTCTAGGAGTTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1595 AAAATTATTTTTTAATTTAAGTCCTAAATATAGTTAAAATAATAATAATGTTTTAGTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 549;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20.5%; Score 434; DB 12; Length 5
100.0%; Pred. No. 1.1e-79;
:ive 0; Mismatches 0; Indels
                                                               /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="S21SNU520-20-C12"
 stop: 549
                                                                                                                                /tissue_type="Stomach"
                Location/Qualifiers
                                                /organism="Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1775 CATGAAAAGCTCAC 1788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
Matches 434; Conservative
 High quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ||||||||
361 AATAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1535 GAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 rrrcrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1475 AAACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 17
BG538299
LOCUS
DEFINITION
                                 source
               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \overset{\sim}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
```

961 bp mRNA linear EST 03-APR-2001 F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4691417 5', ence.

BG538299 602566769E mRNA seque

```
Homo sapiens

Balkaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (Bases 1 to 961).

National Institutes of Health, Mammalian Gene Collection (MGC)

National Institutes of Health, Mammalian Gene Collection (MGC)

Ontact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mall.nih.gov

Tissue Procurement: CLOWIECH Laboratories, Inc.

CDNA Library Preparation: CLOWIECH Laboratories, Inc.

CDNA Library Preparation: CLOWIECH Laboratories, Inc.

CDNA Library Preparation: GLONIECH Laboratories, Inc.

CDNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.W.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LCCMISIO row: i column: 18

High quality sequence stop: 578.

Location/Qualifiers

1. of 1

/organism="Homo sapiens"
//mol_type="mRNN"
//lb host="Plators"
//lone="INMGE:461417"
//lone="Inmed:affiere"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACTTTTGAAA-GGAAAGAGTAGACCCAAAGATGTT-ATTTTCTGCTGTT-TGAATTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTCCCCACCCCCAACTTGGCTAGTA-AACACTTACTGAAGAAGAAGCAAT-AAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAGATATTTGTAATCTCCCCCCCATGATCTCGGTTTTCTTACACTGTGATCTT-AAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 AAAGATATTTGTAARCTCTCCAGCCCATGATCTCGGTTTTCTTACACTGTGATCTTCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1028 GCCTCAGTCTCTGTCTCTAAATATTCCACCATAAAACAGCTGAGTTATTATGAATTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGAGAGAATGTGGTTTT----AATCTCTCTCTCACATTTTGATGATTTAGACAGACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTCCCCAGCCCCAACTTGGCTAGTAATACAACACTTACTGAAGAAGAAGAAGCAATCACGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 igagagraargrecritrcracacricricricricacaritrigargaritragacagacric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCTCTTCCTCCTAGTCAATAAACCCCATTGATGATCTATTTCCCAGGCTTATCCCCAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCTCAGTCTCTGTCTCTAAATATTCCACCATAAAACAGCTGAGTTATTATGAATTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19.5%; Score 413.2; DB 12; Length 961; larity 86.0%; Pred. No. 2.2e-75; Conservative 0; Mismatches 73; Indels 29;
  GI:13530531
                                                                     Homo sapiens
Homo sapiens
BG538299.1
EST.
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 626; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
```

Н

d

à

дq

ਨੇ g δ g 8

```
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ⋩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             장
                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BESSB145

BESB145

BESSB145

BESB145

BESSB145

BESSB145

BESSB145

BESSB145

BESSB145

BESSB145
                                                                                                                                                                   1610
                                                                                                                                                                                                                                                      1662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EST 27-JUN-2003
clone
                                                                                                                                                                                                          009
                                                                                                                                                                                                                                                                                              099
                                                                                                                                                                                                                                                                                                                                       CTGTGAAATAGCCTCACCCCTACATGTGGATGAAAAATA
                                                                                                                                                                                                                                                                                                                                                           CTCTTTCTGT-CGCGGGTCAGA-AATTGTCCCTAGATGAAATGAGAAAATTATTTTTA
                                                                                                                                                                                                                                                                                  ||||||
|CTAAAATATAGTTAAAAAATAATCAATCGTCTAACGTAAACATGCATACA
                                                                                                                                                                                          ATTTAAGTCCTAAATATAGTTAAAATAAATAATGTTTTAGTAAAATGATACA-----
                                                                                                                                                                                                                                                                                                                                                                                                                          1726
                                                                                                                                                                                                                                                                                       TATTAAGTC
                                                                                                                                                                                                                                                                                                                                      ---CTATCT
                                                                                                                                                                                                                                                                                                                                                                          CTTATCTCT.
                                                                                 GACATCTTC
                                                                                                                       GACATCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                         ATTGCTTT | | | | ATTTGCTT
                                                                                                                         481
                                                                                                                                                                   1553
                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
1437
                                                                                 1494
                                                                                                                                                                                                                                                       1611
                                                                                                                                                                                                                                                                                                                                                                                                                          1719
                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                         1663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 18
BX528145
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
```

```
[TGTTGGCCTACTGG], digested and cloned into distinct DrallI sites of the pME18S-FL3 vector (5' site CACTGTGTG, 3' site CACCATGTG). XhoI should be used to isolate the cDNA insert. Size selection was performed to exclude fragments <1.5kb. Library constructed by Dr. Sumio Sugano (University of Tokyo Institute of Medical Science). Custom primers for sequencing: 5' end primer CTTCTGCTCTAAAAGCTGCG and 3' end primer CGACTGGAGCACA."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BB663682 RIKEN full-length enriched, 0 day neonate lung Mus musculus cDNA clone E030002G01 5', mRNA sequence.
BB663682 GI:16497436
EST.
                                                                                                                                                                                                                                                          ä
                                                                                                                                                                                                                                                                                                                                                                                                                                            268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 627)

Arakawa,T., Carninci,P., Fukuda,S., Furuno,M., Hanagaki,T., Hara,A., Hiramoto,K., Hori,F., Ishii,Y., Ito,M., Kawai,J., Konno,H., Kouda,M., Koya,S., Matsuyama,T., Miyazaki,A., Nomura,K., Ohno,M., Okazaki,Y., Okido,T., Saito,R., Sakai,C., Sakai,K., Sano,H., Sasaki,D., Shibata,K., Shinagawa,A., Shiraki,T., Sogabe,Y., Suzuki,H., Tagami,M., Tagawa,A., Takahashi,F., Takeda,Y., Tanaka,T., Toya,T., Muramatsu,M. and Hayashizaki,Y. RIKEN Mouse ESTs (Arakawa,T., et al. 2001)
                                                                                                                                                                                                                                                                                           148
                                                                                                                                                                                                                                                                                                                                                                     208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         513
                                                                                                                                                                                                                                                                                                                               93
                                                                                                                                                                                                                                                                                             CATGICCACCACACATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGGCTGGCCGG
                                                                                                                                                                                                                                                                                                                     cargectattatturi
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACCGCCGTGTTCCAGTATGAAGGGCTCTGGAGGAGTTGCGTGCAACAGAGCTCGGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCCTGATGATGGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCCATCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rrcressarcrrerrcarcraccescarcrestscarcarrestraticardistriction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACCTCCGTGTTCCAGTACGAAGGCTCTGGAGGTGCTGCGTGAGGCAGAGTTCAGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAACATGACACTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCGGGATCATGTTCATTGTCTCAGGTCTTTGTGCAATTGCTGGAGTGTCTGTGTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DDDD----
                                                                                                                                                                                                                                                                                                                                                                      CTGCATCGCGGCCACCGGGATGGACATGTGGAGCACCCAGGACCTGTACGACAACCCCGT
                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATGGGTGGGATGCTGCAGACTGTTCAGACCAGGTACACATTTGGTGCGGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                   Length 567;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAACATGCTGGTGACTAACTTCTGGATGTCCACAGCTAACATGTACA----
                                                                                                                                                                                                                    Score 394; DB 13; Length E
Pred. No. 2.3e-71;
0; Mismatches 70; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                       ·
•
                                                                                                                                                                                                                      18.6%;
85.2%;
                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                           455;
                                                                                                                                                                                                                      Query Match
Best Local S:
Matches 455
                                                                                                                                                                                                                                                                                                                                                                      149
                                                                                                                                                                                                                                                                                                                                                                                                                                                209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    514
                                                                                                                                                                                                                                                                                                                                  34
                                                                                                                                                                                                                                                                                                                                                                                                           94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         509
                                                                                                                                                                                                                                                                                              89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 19
BB663682
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                      ORIGIN
```

```
CCTGGAAGCCTGCGCCCAGCAGCTGAAGCCATGGCCACCACCACGTGCCAGGTGGTAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .540
/organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="S9SNU601-81-F07"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /tissue_type="Ascites"
/cell_type="Epithelial"
/cell_line="SNU-601"
/lab_host="Topl0F'"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNA sequence.
BM836731
BM836731.1 GI:19193140
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ното варіепв
                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                 386
    98
                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BM836731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                  g
                                                                                                                                                            d
                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                        ð
                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
         Contact: Yoshihide Hayashizaki
Contact: Yoshihide Hayashizaki
Contact: Yoshihide Hayashizaki
Laboratory for Genome Exploration Research Group, RIKEN Genomic
Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Teurumi-ku, Yokohama, Kanagawa 230-0045, Japan
1-7-22 Suehiro-cho, Shibata,Y., Hayateu,N., Sugahara,Y., Shibata,K.,
Carninch,P., Shibata,Y., Hayateu,N., Sugahara,Y., Shibata,K.,
Itch,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. . 10 (10), 1617-1630 (2000)
Wagin,K., Fujiwake,S., Tshikawa,T., Ozawa,K., Tawa,M., Ohara,B.,
Matahixi,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T.,
Matahixi,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T.,
Matahixi,M., Yoneda,Y., Shibata,K., Itch,M., Carninci,P.,
Sugahara,Y., and Hayashizaki,Y., Shibata,K., Itch,M., Carninci,P.,
Sugahara,Y., and Hayashizaki,Y., Shibata,K., Kivoswa,H., Yamanaka,I.,
Alzawa,K., Fukuda,S., Hara,A., Itch,M., Kawai,J., Shibata,K. and
Computer-based methods for the mouse full-length cDNA
Hayashizaki,Y.
Alzawa,K., Pukuda,S., Hara,A., Itch,M., Kawai,J., Shibata,K. and
Computer-based methods for the mouse full-length COmputer details.

E mouse tisst our web site (http://genome.goc.riken.go.jp) for further details.

E mouse tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="lung"
/dev_stage="0 day neonate"
/lab_host="DH10B"
/clone_lib="RIKEN full-length enriched, 0 day neonate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTCAGGAGCGCGTTAGCTTCACACCTTCGGCAGCAGGAGGGCGGCAGCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCGCTCCCCAGCGAGGCCGTGAACCTTCCCAGCAAGAGGGTGCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 18.2%; Score 386; DB 10; Length 627; Best Local Similarity 79.4%; Pred. No. 1e-69; Matches 469; Conservative 0; Mismatches 121; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Mus musculus"
/mol_type="mRNA"
/db_xref="taxon:10090"
/clone="E030002G01"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  56
 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
```

```
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

Exim, N.S., Hahn, Y., Oh, J.H., Lee, J.Y., Ahn, H.Y., Chu, M.Y., Kim, M.R., Oh, K.J., Cheong, J.E., Sohn, H.Y., Kim, J.M., Park, H.S., Kim, S. and Kim, Y.S.

Z1C Frontier Korean EST Project 2001

Unpublished (2002)

Contact: Kim YS

Genome Research Center

Korea Research Institute of Bioscience & Biotechnology

S2 Eoeun-dong Yuseong-gu, Daejeon 305-333, South Korea

Tel: +82-42-860-4470

Fax: +82-42-860-4409

Email: yongsung@mail.kribb.re.kr

Plate: 81 row: F column: 07

High quality sequence stop: 540.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BM836731 540 bp mRNA linear EST 06-MAR-2002
K-EST0112603 S9SNU601 Homo sapiens CDNA clone S9SNU601-81-F07 5',
                                265
                                                                                                      299
                                                                                                                                                                                325
                                                                                                                                                                                                                                                         359
                                                                                                                                                                                                                                                                                                                                   385
                                                                                                                                                                                                                                                                                                                                                                                                               419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   539
                                                                                                                                                   266 AGGAGTTGCGTGCAACAGAGCTCGGGGTTCACCGAGTGCCGGCCATACTTCACCATCCTG
206 AGCACTCAAGACCTGTATGACAACCCAGTCACCGCGGTGTTCCAGTATGAAGGGCTCTGG
                                                                                                                                                                                                                                                                                                      GCCTTCCAGCCATGCTGCAAGCTGTACGAGCCCTGATGATCGTGGGCCATTGTTCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                               GCCATTGGCCTCCTGGTATCCATCTTTGCCCTGAAATGCATCCGCATTGGCAGCATGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCATCGGTATCCTCGTGTCCATCTTCGCCCTGAAGTGCATTCGCATTGGTAGCATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      506 rerecarrearresrerererererreseaacarecresreaceaerreresareree
                                                                                                         240 AGGAGCTGCGTGAGGCAGAGTTCAGGCTTCACCGAATGCAGGCCCTATTTCACCATCCTG
                                                                                                                                                                                                                                                            GGACTICCAGCCATGCTGCAGGCAGTGCGAGCCCTGATGATCGTAGGCATCGTCCTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   446 GACTICTGCCAAGGCCAAGATGACTCTGACTTCTGGGATCTTGTTCATCTCCGGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACTCTGCCAAAGCCAACATGACACTGACCTCCGGGATCATGTTCATTGTCTCAGGTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTGCAATTGCTGGAGTGTCTGTGTTTGCCAACATGCTGGTGACTAACTTCTGGATGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         566 ACAGCTAACATGTACAGCGGCATGGGCGTGGGTGGCATGGTGCANACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540 ACAGCTAACATGTACACCGGCATGGTGGGATGGTGCAGACTGTTCAGACC
```

0 Н m

Sep

Fri

us-10-063-731-117.rst

```
1783
                                                                    JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
           TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
/clone_lib="S9SNU601"
/note="Organ: Stomach; Vector: pME18-FL3; Site_l: XhoI;
Site_2: XhoI; The poly (A)+ RNA was dephosphorylated with
bacterial alkaline phosphatase (BAP) and then decapped
with tabacco acid pyrophosphatase (TAP). The decapped
intact mRNA was ligated with DNA-RNA linker including Sfil
site by treatment of T4 RNA ligase and the first strand
cDNA was synthesized with Superscript II using Sfil
oligo-dT primer. After first strand synthesis, RNA was
degraded by NaOH treatment and cDNA was amplified by PCR
reaction. The PCR products were digested with Sfil and
cloned into DraIII- digested pME18S-FL3 vector. The
obtained cDNA vectors were used for transformation of
competent cells E. coli Top10F' by electroporation method.
The cDNA libraries constructed by this method are
full-length enriched cDNA library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BM997852 600 bp mRNA linear EST 17-JUN-2002 UI-H-DIO-auw-1-24-0-UI.81 NCI_CGAP_DIO Homo sapiens cDNA clone IMAGE:5875367 3', mRNA Bequence.
BM997852 BM997852.1 GI:19722753
EST.
Homo sapiens (human)
Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 600)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCACCACATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGGCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGGCCACCGGGATGGACATGTGGAGCACCCAGGACCTGTACGACACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           207 GTCACCTCCGTGTTCCAGTACGAAGGCTCTGGAGGAGCTGCGTGAGGCAGGTTCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTAACAGCTGTTTTCAACTACCAGGGCTGTGGCGCTCCTGTGTCCGAGAGGCTCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ceaecccrdarearceraeccarcerecreeccarreeccarcerar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCCTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAACATGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCAACATGCTGGTGACTAACTTCTGGATGTCCACAGCTAACATGTACACGGCATGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THE THE TENT OF TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   291 CGAGCCCTGATGATCGTAAGCATCGTCCTGAGTGCCATTGGCCTCCTGGTATCCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCCTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAACATGACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCTCCGGGATCATGTTCATTGTCTCAAGTCTTTGTGCAATTGCTGGAGTGTCTGTGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCICCGGGAICAIGITCAITGICICAGGICTITGIGCAAITGCTGGAGIGTCTGITIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGGTGACTAACTTCTGGATGTCCACAGCTAACATGTACACCGGCATGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ć
o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 540;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      70; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 378; DB 12;
Pred. No. 4.9e-68;
0; Mismatches 70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 85.7
Matches 420; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGATGGTGC 576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGATGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCTGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCACCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        87 ATCATGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 21
BM997852
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \stackrel{\sim}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
```

```
| Journal of State | Journal of 
                                                                                                                        Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Jose Mercuende
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Clone distribution information can be found
through the I.M.A.G.E. Consortium/LINL at: http://image.llnl.gov
The following repetitive elements were found in this CDNA
sequence: 1-60, >AT_rich#Low_complexity (matched compliment)
278-568, >ALU
Seq primer: M13 FORWARD
POLYA=Yes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ij,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        302
                                                                                                                                                                                                                                                                         University of Iowa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62
Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           123 ATTGCTTTGACATTGTCTATATGCTACTTTGTAAAGTCATGCTTAAGTACAAATTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1796 ATCCTAGCACTTTGGGAGGCTGAGGAGGATCACTTGAGCCCAGAAGTTCGAGACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              303 ATCCTAGCACTITGGGAGGCTGAGGAGGAAGGATCACTIGAGCCCAGAAGTTCGAGACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACACTATCTCTGTGAAATAGCCTCACCCCTACATGTGGATAGAAGGAAATGAAAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTGCTTTGACATTGTCTATATGGTACTTTGTAAAGTCATGCTTAAGTACAAATTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       183 AAAAGCTCACTGATCCTAATTCTTTCCCTTTGAGGTCTCTATGGCTCTGATTGTACATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----GCTCACACCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        243 TAGTAAGTGTAAGCCATGTAAAAGTAAATAATGTCTGGGCACAGTGGCTCACACTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 600;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17.8%; Score 377.2; DB 12; Length llarity 82.3%; Pred. No. 7.1e-68; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAG_LIBSUE=lung with fibrosis
TAG_LIB=UI-H-DIO
TAG_SEQ=ATACGCGGTC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
nes 492; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1779
```

Qy 727 CCTCAGGCCACAGTGTTGCCTACAAGCCTGGAGGCTTCAAGGCCAGCACTGGCTTTGGGT 786	956 200 1016 140	LOCUS LOCUS BF091029 421 bp mRNA linear EST 19-OCT-2000 DEFINITION MR3-SN0036-110900-011-e08 SN0036 Homo sapiens CDNA, mRNA sequence. ACCESSION BF091029.1 GI:10896739 KEYWORDS SOURCE Homo sapiens (human) ORGANISM Homo sapiens (human) Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia: Entheria: Drimates: Catarrhini: Hominidae: Homo	Lases 1 to 12. Correa, R., Verjovski-Almeida, S., Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Cogoldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Brunstein, A., deoliveira, P.S., Bucher, P., Jongeneel, Co'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Simpson, A.J. Shotgun sequencing of the human transcriptome with OF sequence tags Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)	EDLINE PUBMED MENT	EFATURES EFATURES EFAX: 455-11-2704922 FAX: 455-11-2707001 Email: asimpson@ludwig.org.br FAX: 455-11-2707001 Email: asimpson@ludwig.org.br FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=MR3-SN0036-110 900-011-e08&t3=2000-09-11&t4=1) Seq primer: puc 18 forward High quality sequence stop: 421. FEATURES Location/Qualifiers FORMING SETURES Location/Qualifiers FORMING SETURES Location/Opalism="Homo sabiens"	/mol_type="mRNA" /db_xref="taxon:9606" /dev_stage="Adult" /clone_lib="SN0036" /note="Organ: stomach_normal; Vector: pucl8; Site_1: Smal; /note="Organ: stomach_normal; Vector: pucl8; Site_1: Smal; site_2: Smal; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application
QY 1856 GCCTGGGCAACATGGAGAAAGCCCTGTCTCTACAAATACAGAGAAAAATCAGCCAGT 1915 Db 363 GCCTGGGCAACATGGAGAAACCCTGTCTCTACAAATACAGAGAGAAAAATCAGCCAGT 422 QY 1916 CATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTGAGGACACACTTG 1975 Db 423 CATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTGAGGAGATCACTTG 482 QY 1976 AGCCCAGGGAGGTTGAGGCTGAGTGAGCCATGATCACACCACCACGCAGGTG 2035 Ph 483 AGCCCAGGGAGGTTGAGAGCCATGATCACACCACCACTGCACTCCAGCCAG	RESULT 22 BU946638 LOCUS DEFINITION 703769950J1 RALUTXL01 Rattus norvegicus CDNA, mRNA sequence. ACCESSION BU946638 VERSION BU946638.1 GI:37701955 KEYWORDS SOURCE RATTUS norvegicus (Norway rat) ORGANISM Rattus norvegicus Ebkaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	.L. for the cor sequencir	6508454102 : gfu@incyte.com. Location/Qualifiers 1. 797 /organism="Rattus norvegicus" /mol_type="mRNA" /db_xref="taxon:10116" /tissue_type="Lung" /clone_lib="RALUTXL01" /note="Rat, Lung, Clofibrate, 2	Sacrifice, SD, M/F, Pool" ORIGIN Query Match Best Local Similarity 80.4%; Pred. No. 2.4e-67; Matches 530; Conservative 0; Mismatches 109; Indels 20; Gaps 7;	Qy 427 CCAAAGCCAACATGACCTCCGGGATCATGTTCATTGTCTTTGTGCAA 486	QY 607 CGGCTCTGTTCGTGGGCTCGCTCGCAGGCCTCCACTAATTGGGGGTGTGATGATGT 666 Db 560 CAGCTCTGTTTGTGGGCTGGAGGCCTCACTAATTGGAGGTGTGATGT 501 QY 667 GCATCGCCTGCCGGGGCCTGGCACCAGAAACCAACTACAAAGCCGTTTCTTATCATG 726 Db 500 GCATCGCTTGCCGTGGCCTGACTCCTGATGACCAACTTCAAAGCCGTTTCTTATCATG 726 Db 500 GCATCGCTTGCCGTGGCCTGACTCCTGATGACCGCAACTTCAAAGCCGTTCCTACCACG 441

ORIGIN

```
Tel: +55-11-2704922
Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome This sequence was derived from the following URL
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=MR0-SN0040-310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
Homo sapiens
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 379)
Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and Simpson, A.J.
Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                     1103
                                                                                                                                                                                                                                                                                                                                                                                                            1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST 22-SEP-2000 mRNA sequence.
                   oŧ
                                                                                                                                                                                                                                                            1043
                                                                                                                                                                                                                                                                                                  129
                                                                                                                                                                                                                                                                                                                                                                         189
                                                                                                                                                                                                                                                                                                                                                                                                                                                249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  369
                                                                                                                                                                                                                        69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Paulo-SP
No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription tissue mRNA and cDNA amplification were performed under low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  310 AACCCATTGATGATCTATTTCCCAGCTTATCCCCAAGAAACTTTTGAAAGGAAAGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACCCATTGATGATCTATTTCCCAGCTTATCCCCAAGAAAACTTTTGAAAGGAAAGATA
                                                                                                                                                                                     JAAGGAGATCCCATCTAGATTTCTTCTTGCTTTTGACTCACAGCTGGAAGT
                                                                                                                                                                                                           TICGATITICATCITIGGAGGGCCAAATGGICTTAGCCTCAGTCTGTCT
                                                                                                                                                                                                                                                                                    CCACCATAAAACAGCTGAGTTATTTATGAATTAGAGGCTATAGCTCACATT
                                                                                                                                                                                                                                                                                                                                                          TATITICITITITAAATATAACTITICIACTCTGATGAGAGAATGTGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                    CTATTICITTTTTTAAATATAACTTTCTACTCTGATGAGGAATGTGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence tags
Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
20202663
10737800
Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BE841291
MRO-SN0040-310500-007-a11 SN0040 Homo sapiens CDNA, BE841291
BE841291.1 GI:10273669
EST.
                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           412
                                                                                                            Score 373.6; DB 10; Length
Pred. No. 4.2e-67;
0; Mismatches 10; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
0
                                                                                                            17.6%;
97.0%;
vative
                                                                                                                                                                                                                                                                                                                                    CTAAATATTC
                                                                                                            Query Match
Best Local Similarity
Matches 391; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                             TTCAATCCT(
                                                                                                                                                                                                                                                                                       TAGAAAAGC
                                                                                                                                                                                                                                                                 TAGAAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              250 TARICICIC
                                                                                                                                                                                      924 CCCAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCAATCCT
                                                                                                                                                                                                                            17
                                                                                                                                                                                                                                                                 984
                                                                                                                                                                                                                                                                                                    70
                                                                                                                                                                                                                                                                                                                                          1044
                                                                                                                                                                                                                                                                                                                                                                           130
                                                                                                                                                                                                                                                                                                                                                                                                                1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                   190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 24
BE841291/C
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
```

ਨੇ

g

ದ್ದ ð

ద ₹ ద ð ઠે g ð qq TITLE

```
za67a07.rl Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone
IMAGE:297588 5', mRNA sequence.
N99013.1 GI:127043R
                                                                                                    /mol_type="mRNA"
/mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone lib="SN0040"
/note="Organ: stomach normal; Vector: pucl8; Site_1: Smal;
Site_2: Smal; A mini-library was made by cloning products
derived from ORESTES PCR (U.S. Letters Patent application
No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
tissue mRNA and cDNA amplification were performed under
low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1510
                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M.,
Holman,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M.,
Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F.,
Trevaskis,E., Waterston,R., Williamson,A., Wohldmann,P. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            67 GCAACACCATTCTAGGAGTTTCCTGAGCTCTCCACTGGAGTCCTCTTTCTGTCGCGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ccaacinggcragraaraacacinacigaagaagaagcaaraagagaaagararirgra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCAACACCATTCTAGGAGTTTCCTGAGCTCTCCACTGGAGTCCTTTTCTGTCGCGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                      CTCCTAGTCAATAAACCCATTGATGATCTATTTCCCCAGCTTATCCCCAAGAAACTTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                             AAAGGAAAGAGTAGACCCAAAAGATGTTATTTTCTGCTGTTTGAATTTTGTCTCCCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCTCTCCAGCCCATGATCTCGGTTTTCTTACACTGTGATCTTAAAAGTTACCAAACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTCATTTTCAGTTTGAGGCAACCAAACCTTTCTACTGCTGTTGACATCTTCTTATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       127 AGTCATTTCAGTTTGAGGCAACCAACCTTTCTACTGCTGTTGACATCTTATTACA
                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                    ..
0
                                                                                                                                                                                                                                                                                                                                   Length 379;
                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                      DB 10;
                                                                                                                                                                                                                                                                                                                                   Score 360.8; DB 10;
Pred. No. 1.9e-64;
0; Mismatches 2;
500-007-all&t3=2000-05-31&t4=1)
Seq primer: puc 18 forward
High quality sequence stop: 379.
Location/Qualifiers
i. 379
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAACTTGGCTAGTAATAACAC
                                                                                                                                                                                                                                                                                                                                    Query Match 17.0%;
Best Local Similarity 99.5%;
Matches 362; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The WashU-Merck EST
Unpublished (1995)
Contact: Wilson RK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1571 AGAA 1574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7 AGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1451
                                                                                                                                                                                                                                                                                                                                                                                                           1211
                                                                                                                                                                                                                                                                                                                                                                                                                                           367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25
                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
N99013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ⋩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
```

us-10-063-731-117.rst

```
Query Match
Best Local Similarity
Matches 400; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           က
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1487
                  ORGANISM
                                                                                                                                                                      MEDLINE
PUBMED
COMMENT
                                                     REFERENCE
AUTHORS
                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                       TITLE
       SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ਨੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                             1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EST 22-SEP-2000 mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                            ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        74
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Seq primer: mob.REGA+ET
High quality sequence stop: 227.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAATTITGTCTCCCCACCCCCAACTTGGCTAGTAATAAACACTTACTGAAGAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAAGAGAAAGATATTTGTAATCTCCCAGCCCATGATCTCGGTTTTCTTACACTGTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCCCCCTCTTCCTCCTAGTCAATAAACCCATTGATGATCTATTTCCCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTAAAAGTTACCAAACCAAAGTCATTTTCAGTTTGAGGCAACCAAACCTTTCTACTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCTTATTACAGCAACACCCATTCTAGNAGTTTCCTGAGCTCTCCAGTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCCCCAAGAAACTTTTGAAAGGAAAGAGTAGACCCAAAGATGTTATTTTCTGCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               135 GAATTITGICTCCCCACCCCCAACTTGGCTAATAAACACTTACTGAAGAAGAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               195 TAAGAGAAAGATATTTGTAATCTCTCCAGCCCATGATCTCGGTTTTTCTTACACTGTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tranabagtraccaagtcartragtraggedagcaaccartcractgcrg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             75 ATCCCCAAGAAAACTTTTGAAAGGAAAGAGTAGACCCAAAGATGTTATTTTCTGCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                                                                                                                                                                                             Query Match 16.5%; Score 349.6; DB 14; Length 420; Best Local Similarity 97.1%; Pred. No. 4.1e-62; Matches 366; Conservative 0; Mismatches 10; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BE841654 458 bp mRNA linear MR1-SN0064-220500-005-d01 SN0064 Homo sapiens cDNA, BE841654.1 GI:10274032 EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCTTATTACAGCAACA-CCATTCTAGGAGTT
                                                                                                ity sequence stop: 227
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  recremination 1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rererered
                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGACAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                            1192 AGACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTGACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rccerci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         375
                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 26
BE841654
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 公
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

```
Harail: #55-11-2704922
Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=MR1-SN0064-220 500-005-d01&t3=2000-05-22&t4=1)
Seq primer: puc 18 forward
High quality sequence start: 260
High quality sequence stop: 338.

Location/Qualifiers
1. 458
/organism="Homo sapiens"
//mol_type="mRNA"
//mol_type="mRNA"
//db_xrage="mRNA"
//db_
                                              Home sappens
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 458)
S Dias Neto,E., Garcia Correa,R., Verjovski-Almeida,S., Briones,M.R., Nagai,M.A., da Silva,W. Jr., Zago,M.A., Bordin,S., Costa,F.F., Goldman,G.H., Carvalho,A.F., Matsukuma,A., Baia,G.S., Simpson,D.H., Brunstein,A., deOliveira,P.S., Bucher,P., Jongeneel,C.V., O'Hare,M.J., Soares,F., Brentani,R.R., Reis,L.F., de Souza,S.J. and Simpson,A.J.
Shotgun sequencing of the human transcriptome with ORF expressed sequence tags
Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)

E 20202663
D 10737800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sao Paulo-SP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATTTAGACAGACTCCCCCCTCTTCCTCCTAGTCAATAAACCCATTGATGATCTATTTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGATCTTAAAAGTTACCAAACCAAAGTCATTTTCAGTTTGAGGCAACCAAACCTTTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCTGTTGACATCTTCTTATTACAGCAACACCATTCTAGGAGTTTCCTGAGCTCTCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATTTTTACAGACTAGCCCTCTTCCTCCTAGACAATTAACCCATTGATGAACTATTTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCTTATCCCCAAGAAAACTTTTGAAAGGAAAGAGTAGACCCAAAGATGTTATTTTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Additoroccasasasasicaritaras de consecuencios de consecuencion de consecuencios de consecuen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGCTAGTAATAAACACTTACTGAAGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCAATAAGAGAAAGATATTTGTAATCTCCCAGCCCATGATCTCGGTTTTCTTACACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAACTTAAAAAGTTACCAAACCAAAGGCACTTTCAGGTTGAGGCAACCAAACCTTTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 458;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010,
Brazil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 346.8; DB 10; Length
Pred. No. 1.6e-61;
0; Mismatches 52; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTTTGAATTTTGTCTCCCCACCCCCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16.4%;
ilarity 88.1%;
Conservative C
sapiens (human)
```

```
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                d
                                                                                                                                          8
                                                                                                                                                                            ద
                                                                                                                                                                                                                            \delta
                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                          ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                         BMM35109.1 GI:19192518

S EST.

Homo sapiens (human)

ISM Homo sapiens

Homo sapiens

Est.

Homo sapiens

Homo sapiens

Est.

Est.

Homo sapiens

Est.

Homo sapiens

Est.

Homo sapiens

Est.

Homo sapiens

Est.

                                                                                                                                                                                                                                                                                                               BM836109

K-EST0111603 S9SNU601 Homo sapiens cDNA clone S9SNU601-65-G03 5',

mRNA sequence.

BM836109

GI:19192518
CATCTICITATTACAGCAACACCATTCTAGGAGTTTCCTGAGCTCTCCACT 361
                                                GGAGTCCTCTTTCTGTCGCGGGTCAGAATTGTCCCTAGATGAATTA-TTTT
                                                                         302 TGCTGTTGA
                                                                                              362
                                                                                                                                                1606
                                                1547
                                                                                                                                                                                                                                                                 RESULT 27
BM836109
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                            g
                                                                                                                                                à
                                                ð
```

Query Match 16.1%; Score 341; DB 12; Length 341; Best Local Similarity 100.0%; Pred. No. 2.6e-60; Matches 341; Conservative 0; Mismatches 0; Indels

874 AATGCTCTA

ઠે

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 412)

Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deoliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1. .412
/organism="Homo sapiens"
/wol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="SN0036"
/note="Organ: stomach normal; Vector: pucl8; Site_1: Smal; Site_2: Smal; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tel: +55-11-2704922
Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
This sequence was derived from the following URL
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?t1=&t2=MR3-SN0036-280
400-009-f08&t3=2000-04-28&t4=1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AW867300 412 bp mRNA linear EST 22-MAY-2000 MR3-SN0036-280400-009-f08 SN0036 Homo Bapiens cDNA, mRNA sequence. AW867300
                                                                                                                                                                                                                                                                                  1113
                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Shorgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                           241 TATTICITITITIAAATATAAACTITICTACTCTGATGAGAGAAGAGGGTTTTAATCTCT
                                                                                                                                                                                                                                                                                                            1 AATGCTCTAAGACCTCTCAGCACGGGGAAGAAGTCCCCGGAGAGCTCACCCAAAAAC
                                                    AAGGAGATCCCATCTAGATTTCTTGTTTTGACTCACAGCTGGAAGTTAGAAAAGCC
                                                                                                                                                                      TCGATTTCATCTTTGGAGGGCCAAATGGTCTTAGCCTCAGTCTCTGTCTTAAATATTTC
                                                                                                                                                                                                   61 AAGGAGATCCCATCTAGATTTCTTGTTTTGACTCACAGCTGGAAGTTAGAAAAGCC
                                                                                                                                                                                                                                                                               CACCATAAAACAGCTGAGTTATTTATGAATTAGAGGCTATAGCTCACATTTTCAATCCTC
                                                                                                                                                                                                                                                                                                                                                                                           TATTTCTTTTTTTAAATATATACTTTCTACTCTGATGAGAGAATGTGGTTTTTAATCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao
Brazil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sequence tags
Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
20202663
10737800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCACATTTTGATGATTTAGACAGACTCCCCCTCTTCCTCC 1214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCACATTTTGATGATTTAGACAGACTCCCCCTCTTCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seq primer: puc 18 forward
High quality sequence start: 5
High quality sequence stop: 41;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AW867300.1 GI:8001352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                  1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1174
                                                                                                                                                                        994
                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                             1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AW867300/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 28
```

m

Sep

Fri

```
Similarity
                                                                                                                       363;
                                                                                                      Query Match
Best Local S
Matches 363
                                                                                                                                                                          445
                                                                                                                                                                                                            505
                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                              565
                                                                                                                                                         ∺
                                                                                                                                                                                           61
                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                              625
                                                                                                                                                                                                                                                                                                                 685
                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                   745
                                                                                                                                                                                                                                                                                                                                                                                                     CA436277/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
COMMENT
                                                                                      ORIGIN
                                                                                                                                                         d
                                                                                                                                                                                         셤
                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                          ð
                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                       1090
                                                                                                                                                                          1150
                                                                                                                                                                                                           1210
                                                                                                      1031
                                                                                                                                                                                                                                             TCAATAAACCCATTGATGATCTATTTCCCAGCTTATCCCCAAGAAACTTTTG 1270
                                                                                                                                                                                                                                                                                                                                          402 bp mRNA linear EST 11-JUN-2001
Bovine Abomasum cDNA Library Bos taurus cDNA 5', mRNA
                                                    3
                                                                                                                       288
                                                                                                                                                         228
                                                                                                                                                                                         1.68
                                                                      971
                                                                                                                                                                                                                             108
                                                                                                                                                                                                                                                               49
tissue mRNA and cDNA amplification were performed under low stringency conditions."
                                                                                 CCGGGGGAGCTCACCAAAAAACAAGGAGATCCCATCTAGATTTCTTCTTGCTTTGACTC
                                                                                                                                                                                    347 ACAGCTGGAAGTTAGAAAAGCCTCGATTTCATCTTTGGAGAGGCCAAATGGTCTTAGCCT
                                                                                                                                                 287 CAGTCTGCTGTCTTCATATTCCACCATATTACAGCTGAGTTATTATGAATTAGAGGC
                                                                                                                                                                          CACATITICAATCCICTATITICTTTTTTAAATATAACTTTCTACTCCTGATGA
                                                                                                                                                                                                           107 CTCCTAGTCAATAAACCCATTGATGATCTATTTCCC-GCTTATCCCCAGACAACTTTTGT
                                                                                                      3GAAGTTAGAAAAGCCTCGATTTCATCTTTGGAGAGAGGCCAAATGGTCTTAGCCT
                                                                                                                                        Gaps
                                                    4;
                                                                                                                                                                                                                                                                                1317
                                                                                                                                                                                                                                                                                               4
                                    Length
                                                                                                                                                                                                                                                                                        AA--GGAAGAGTAGACCCAAAGATGTGATTTTCTGCTGTTTGATTTT
                                  Score 340.2; DB 10; Lengtl
Pred. No. 3.7e-60;
0; Mismatches 18; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Bos taurus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                  Query Match
Best Local Similarity 94.6%;
Matches 385; Conservative
                                                                   CCGGAGA
                                                                                                                                                                                                                                                                             AAAGGAA
                                                                                                                                                                          TATAGCT
                                                                                                                                                                                        TATAGCT
                                                                                                                                                                                                           GAGAATG
                                                                                                                                                                                                                                             CTCCTAG
                                                                                                                                                                                                                                                                                                                                                  1Abo10C03
                                                                                                      ACAGCT
                                                                                                                                        CAGTCT
                                                                                                                                                                                                                                                                                                                                         BG937956
                                                                                                                                                                                                                           167
                                                                    912
                                                                                    407
                                                                                                      972
                                                                                                                                        1032
                                                                                                                                                                         1091
                                                                                                                                                                                         227
                                                                                                                                                                                                          1151
                                                                                                                                                                                                                                             1211
                                                                                                                                                                                                                                                                              1271
                                                                                                                                                                                                                                                                                               48
                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                        RESULT 29
BG937956
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                 ORIGIN
```

d

ð

⋩

dd

g ð

ਠੋ

ద

ਨੋ

à g

```
Tumor Gene Index
Unpublished (1997)
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Jose Mercuende
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
The Following repetitive elements were found in this CDNA
Sequence: 1-34, >AT_rich#Low_complexity (matched compliment)
77-367, >ALU (matched compliment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CA436277
UI-H-DT0-aud-1-05-0-UI.81 NCI CGAP DT0 Homo sapiens CDNA clone
UI-H-DT0-aud-1-05-0-UI 3', mRNA sequence.
CA436277
CA436277.1 GI:24800697
EST.
                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                          444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 493)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIGCCCTGAAGTGCATCCGTATGGGCAACATGGATGACTCCGCCAAAGCCAAAATGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGGGATGGTGCAGACTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTCGTGGCGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 GGGTCGCTGGAGGCCTCACGCTGATTGGGGGCGTGCTGATGTGCATCGCCTGCCGGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGCACCAGAAGAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 TGGCCCCCGAGGAAACCAACTACAAAGCCGTCTCTTACCATGCCTCAGGCCACAACGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGCCAACATGCTGGTGACTTCTGGATGTCCACAGCTAACATGTACACCGGCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             385 TTGCCCTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAACATGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGACCTCCGGGATCATGTTCATTGTCTCAGGTCTTTGTGCAATTGCTGGAGTGTCTGTGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGTCGCTGGAGGCCTCACACTAATTGGGGGTGTGATGTGCATCGCCTGCCGGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
/mol_type="mRNA"
/db_xref="taxon:9913"
/sex="Two males and one female mixed"
/tissue_type="Gastrointestinal tissue (GIT)"
/cell_type="Epithelial"
/dev_stage="Young adult"
/lab_host="XL1-BlueMRF'-strain"
/clone_lib="Bovine Abomasum cDNA Library"
/note="Organ: Abomasum; Vector: Uni-2ZAPXR; Site_1:
I; Site_2: Xho I"
                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                         Score 339.6; DB 12; Lengthered. No. 5e-60; O; Mismatches 39; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTACAAGCCTGGAGGCTTCAAGGCCAGCACTGGCTTTGGGT 786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTACAGGCCTGGAGGCTTCAAAGCCAGCAGTGGCTTTGAGT
                                                                                                                                                                                                                                                                                                                                           16.0%;
llarity 90.3%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
Homo sapiens
```

us-10-063-731-117.rst

```
/clone="Slawesy planes" |
/sex="F" |
/lab_host="ToplOF'" |
/clone lib="Sl8N669761" |
/clone lib phosphatase (BAP) and then decapped with tabacco acid pyrophosphatase (TAP) and then decapped intact mRNA was ligated with DNA-RNA linker including EcoR is the by treatment of T4 RNA ligase and the first strand cDNA was synthesized from oligo dT-selected mRNA by priming with dT-tailed vector. The dT-tailed vector was adjusted to have about 60nt. The dT-tailed vector was adjusted to have about 60nt. The dT-tailed vector was circularized with E. coli DNA ligase after digestion of EcoRI which site is also included in vector. An RNA strand converted to a DNA strand by Okayama-Berg method. The obtained cDNA vectors were used for transformation of competent cells E. coli ToplOF' by electroporation method. The cDNA libraries constructed by this method are full-length enriched cDNA library."
             Kim, N.S., Hahn, Y., Oh, J.H., Lee, J.Y., Ahn, H.Y., Chu, M.Y., Kim, M.R., Oh, K.J., Cheong, J.E., Sohn, H.Y., Kim, J.M., Park, H.S., Kim, S. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1903 AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTTCTACAAAATACAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           156 AAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTTACAAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              216 AAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        276 GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                       Contract: Kim YS
Contact: Kim YS
Genome Research Center
Korea Research Institute of Bioscience & Biotechnology
52 Eoeun-dong Yuseong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4470
Fax: +82-42-860-4409
Email: yongsung@mail.kribb.re.kr
Plate: 20 row: E column: 04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 552;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCAAGTCCTAGGAAGTAGGTTAAAACTAATTCTTTAA 2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCAAGTCCTAGGAAGTAGGTTAAAACTAATTCTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 16.0%; Score 339; DB 12; Best Local Similarity 100.0%; Pred. No. 6.4e-60; Matches 339; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mRNA
                                                                                21C Frontier Korean EST Project 2001
Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="$18N669761-20-E04"
                                                                                                                                                                                                                                                                                                     High quality sequence stop: 552.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   567 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BM819706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 32
BM819706
LOCUS
                                                                                  TITLE
JOURNAL
COMMENT
                    AUTHORS
                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ਠੋ
                                                                    Location/qualifiers

1. .493

/organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="UI-H-DTO-aud-1-05-0-UI"
/tissue_type="mRNA"
/db_xref="taxon:9606"
/clone="UI-H-DTO-aud-1-05-0-UI"
/tissue_type="metastatic Chondrosarcoma"
/dev_stage="Adult"
/lab_host="DH10B (Life Technologies)"
/clone lib="NCI CGAP DTO"
/note="Organ: Lung; Vector: pT7T3-Pac (Pharmacia) with a modified polylinker; Site 1: EcoR 1; Site 2: Not 1; MCI CGAP DTO is a cDNA library containing—the following tissue(s): Metatastic Chondrosarcoma in Lung. The library was constructed according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. First strand cDNA synthesis was primed with an oligo-dT primer containing a Not I site. Double stranded cDNA was ligated to an EcoR I adaptor digested with Not I, and cloned directionally into pT7T3-Pac vector. The oligonucleotide used to prime the synthesis of first-strand cDNA contains a library tag sequence that is located between the Not I site and the (dT)18 tail. The sequence tag for this library is AACTGTTCGG.

TAG_LIB=UI-H-DTO
TAG_EEQ=AACTGTTCGG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EST0087879 S18N669761 Homo sapiens CDNA clone S18N669761-20-E04
5', mRNA sequence.
BM819720
BM819720.1 GI:19176133
EST.
Homo sapiens (human)
Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTAATCCTAGCACTTTGGGAGGCTGAGGAGGAAGGATCACTTGAGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         actagecteggeaacatggagaagecergreteretacaaatacagagaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 493;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGCAAGTCCTAGGAAGTAGGTTAAAACTAATTCTTTAA 2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCAAGTCCTAGGAAGTAGGTTAAAACTAATTCTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16.0%; Score 339; DB 14;
100.0%; Pred. No. 6.5e-60;
vative 0; Mismatches 0;
Seq primer: Mls ...
POLYA=Yes.
Location/Qualifiers
1. .493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 339; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTCACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           355 GCTCACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   295 AAGTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGGATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 31
BM819720
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
```

2022

2082

EST 06-MAR-2002

1962

1902

215

155

ö

Gaps

; 0

```
/lab_host="Top10F'"
/clone lib="S18N669761"
/clone lib="S18N669761"
/note="Organ: Stomach; Vector: pCNS; Site_1: EcoRI;
Site_2: NotI; The poly (A) + RNA was dephosphorylated with bacterial alkaline phosphatase (BAP) and then decapped with tabacco acid pyrophosphatase (TAP). The decapped intact mRNA was ligated with DNA-RNA linker including EcoR is the by treatment of T4 RNA ligase and the first strand cDNA was synthesized from oligo dT-selected mRNA by priming with dT-tailed vector. The dT-tailed vector was adjusted to have about 60nt. The cDNA vector was circularized with E. coli DNA ligase after digestion of EcoRI which site is also included in vector. An RNA strand converted to a DNA strand by Okayama-Berg method. The obtained cDNA vectors were used for transformation of The cDNA libraries constructed by this method are full-length enriched cDNA library."
                                                                                                                                              1; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eutheria; Primates; Catarrhini; Hominidae; Homo.
3 1 to 567)
Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R.,
Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,H.S., Kim,S. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGGATCACTIGAGCCCAGGGAGCTIGGGGCTGCAGTGAGCCATGATCACACCACTGCA 350
 K-EST0087863 $18N669761 Homo sapiens cDNA clone $18N669761-20-C12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1843 AAGTTCGAGACTAGCCTGGGCAACATGGAGAGCCCTGTCTCTACAAATACAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           171 AAGTTCGAGACTAGCCTGGGCAACATGGAGAAAGCCCTGTCTCTACAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                         EST.

Homo sapiens (human)

M Homo sapiens (human)

BUKaryota, Metazoa, Chordata; Craniata; Vertebrata; Eutele

Mammalia, Eutheria; Primates; Catarrhini; Hominidae; Homo

I (bases 1 to 567)

Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y.,

Oh,K.J., Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,H.S., Kim,

Kim,Y.S.

21C Frontier Korean EST Project 2001

Unpublished (2002)

Contact: Kim YS

Genome Research Center

Korea Research Institute of Bioscience & Biotechnology

52 Eceun-dong Yuseong-gu, Daejeon 305-333, South Korea

Tel: +82-42-860-4470

Fax: +82-42-860-4409

Email: yongsung@mail.kribb.re.kr

Plate: 20 row: C column: 12

High quality sequence stop: 567.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 567;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16.0%; Score 339; DB 12;
100.0%; Pred. No. 6.4e-60;
cive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="S18N669761-20-C12"
/sex="F"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             organism="Homo sapiens"
                                                              GI:19176119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.
Matches 339; Conservative
                  5', mRNA seq
BM819706
BM819706.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2023
                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                           TITLE
JOURNAL
COMMENT
DEFINITION
                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \tilde{\sigma}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
```

```
/tissue_type="Stomach"
/cell_line="Stomach"
/cell_line="SNU-520"
/lab_host="ToplOF'"
/clone_lib="S2ISNU520"
/lab_host="ToplOF'"
/clone_lib="S2ISNU520"
/note="Organ: Stomach; Vector: pTZ18RPl; Site_l: EcoRl;
Site_2: NotI; The poly (A) + RNA was dephosphorylated with bacterial alkaline phosphatase (BAP) and then decapped with tabacco acid pyrophosphatase (TAP). The decapped with tract mRNA was ligated with DNA-RNA linker including EcoR is te by treatment of T4 RNA ligase and the first strand cDNA was synthesized from oligo dT-selected mRNA by priming with dT-tailed vector. The dT-tailed vector was adjusted to have about 60nt. The cDNA vector was circularized with E. coli DNA ligase after digestion of EcoRI which site is also included in vector. An RNA strand converted to a DNA strand by Okayama-Berg method. The obtained cDNA vectors were used for transformation of competent cells E. coli ToplOF' by electroporation method. The cDNA libraries constructed by this method are full-length enriched cDNA library."
                                                                                                                                                                                                                                      BM794650 570 bp mRNA linear EST 05-MAR-2002
K-EST0076037 S21SNU520 Homo sapiens cDNA clone S21SNU520-24-H09 5',
                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 570)

Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R., Oh,K.J., Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,H.S., Kim,S. and Kim,Y.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1686 CCCTACATGTGGATAGAAGGAAATGAAAATAATTGCTTTGACATTGTCTATATGGTAC 1745
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 ATAGTTAAAATAAATAATGTTTTAGTAAATGATACACTATCTCTGTGAAATAGCCTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2; Indels 104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21C Frontier Korean EST Project 2001
Unpublished (2002)
Contact: Kim YS
Genome Research Center
Korea Research Institute of Bioscience & Biotechnology
52 Eoeun-dong Yuseong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4470
Fax: +82-42-860-4409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 570;
                                                      2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 12;
                                                 2083 CAGCAAGTCCTAGGAAGTAGGTTAAAACTAATTCTTTAA
                                                                                   411 CAGCAAGTCCTAGGAAGTAGGTTAAAACTAATTCTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16.0%; Score 338.8; DB ilarity 81.4%; Pred. No. 7e-60; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .570
/organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="S21SNU520-24-H09"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: Yongsung@mail.kribb.re.kr
Plate: 24 row: H column: 09
High quality sequence stop: 570.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                              GI:19142882
                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
                                                                                                                                                                                                                                                                                      mRNA sequence.
                                                                                                                                                                                                                                                                                                                                            BM794650.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Simi
Matches 464;
                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                  RESULT 33
BM794650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
셤
                                                   ਨੋ
                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
```

232

ö

Gaps

ö

1962

2022

2082

52

112

07-JUL-1998

```
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 395)
S NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index

L Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Insert Length: 595 Std Error: 0.00
Seq primer: -40ml3 fwd. ET from Amersham
High quality sequence stop: 372.
                                                                                                                                                                                                                                                                                                                       /db xref="taxon:9606"
/clone="IMAGP998M066117; IMAGE:2459693"
/tissue_type="poorly differentiated adenocarcinoma with signet ring cell features"
/lab_host="DH10B"
/clone_lib="NCI_CGAP_Gas4"
/note="Organ: sTomach; Vector: pCMV-SPORT6; Site_1: Sall; Site_2: Not1; Cloned unidirectionally. Primer: Oligo dT. Average insert size 1.69 kb. Life Technologies catalog #:1549-011"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA961052
op35b05.s1 Soares NFL T GBC S1 Homo sapiens cDNA clone
IMAGE:1578801 3' Bimilar to contains Alu repetitive element;, mRNA
                                                                                                                                                                                                                                                                                                                                           1843 AAGTTCGAGACTAGCCTGGGCAACATGGAGAGCCCTGTCTCTACAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                       291 AAGTTCGAGACTAGCCTGGGCAACATGGAGAGCCCTGTCTCTACAAAATACAGAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    231 AAAATCAGCCGGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 458;
                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13
                                                                                                                                                                                                                                         Score 337.4; DB 13;
Pred. No. 1.4e-59;
0; Mismatches 1; ]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:1578801"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GI:3127606
                                                                                                                                                                                                                                         Query Match 15.9%;
Best Local Similarity 99.7%;
Matches 338; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AA961052
AA961052.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EST.
                                                                                                                                                                                                                                                                                                                                                           351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 35
AA961052/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            dd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                       ਨੋ
                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (human)

Homo sapiens

Homo sapiens

Homo sapiens

Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

I (bases 1 to 458)

Sebert,L., Heil,O., Hennig,S., Neubert,P., Partsch,E., Peters,M.,

Radelof,U., Schneider,D. and Korn,B.

Human UnigeneSet - RZPD3

AL Unpublished (2003)

Contact: Ina Rolfs

RZPD Deutsches Ressourcenzentrum fuer Genomforschung GmbH

RZPD IMAGP998M066117.

RZPDIIS I.M.A.G.E. cDNA Clone Collection;

Human UnigeneSet - RZPD3 (RZPDLIB NO.972)

http://www.rzpd.de/CloneCards/cgi-

bin/showLib.pl.cgi/response?libNo=972 Contact: Ina Rolfs

RZPD Deutsches Ressourcenzentrum fuer Genomforschung GmbH

Heubnerweg 6, D-14059 Berlin, Germany

Tel: +49 30 32639 101

Fax: +49 30 22639 101

Fax: +49 30 32639 101

Www.rzpd.de

This clone is available royalty-free from RZPD; contact RZPD (clone@rzpd.de) for further information. Seg primer:

M13u, Primer Sequence: CGTGTAAAACGACGCCAGT.

Location/Qualifiers

// M01_Lype="mRNA"
                                                                                                                                                                                                                                                                                                  1882
                                                                                                                                                                                                                                                                                                                                                                             1942
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                458 bp mRNA linear EST 06-FEB-2003
CGAP_Ga84 Homo sapiens cDNA clone IMAGp998M066117;
                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
      241 AATAATGTCTGGGCACAGTGGCTCACGCCTGTAATCCTAGCACTTTGGGAGGCTGAGGAG
                                                                                                                                                                                                                                                                                                                       GAAGGATCACTTGAGCCCCAGAAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTC
                                                                                                                                                                                                                                                                                                                                                                          TCTACAAAATACAGAGAAAAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                 TCTACAAAATACAGAAGAAAAAATCAGCCAGTCATGGTGGCCTACACACTGTAGTCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATTCCGGGAGGCTGA-GGTGGGAGGATCACTTGAGCCCCAGGGAGGTTGGGGGCTGCAGTG
                                                                                                                                                                              181 CTTTGAGGTCTCTATGGCTCTGATTGTAGTAGTAAGTGTAAGGCCATGTAAAAAGTA
                                                                                                                                                                                                                                                                                                CTTGAGCCCAGAAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATTCCGGGAGGCTGAGGGTGGGAGGATCACTTGAGCCCCAGGGAGGTTGGGGCTGCAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACACCACTGCACTCCAGCCAGGTGACATAGCGAGATCCTGTCTAAAAAA
                                                                                                   121 Trigiahagichigcirahgrachaharrcchichhahagcrcharccharrcrarrcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACACCACTGCACTCCAGCCAGGTGACATAGCGAGATCCTGTCTAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                570
                                                                  TTTGTAAAGTCATGCTTAAGTACAAATTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAAAAATAATAATGGAACACAGCAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BX108271
BX108271 NCI CGAP Gas4 Homo sar
IMAGE:2459693, mRNA sequence.
BX108271
BX108271.1 GI:27835103
EST.
                                                                                                                                                                                                                                                                                               GAAGGATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCCATGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCCATGAT
                                                                                                                                          1783
                                                                                                                                                                                                                                                                                               1823
                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                            1883
                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                1746
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1943
                           19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2062
                                                                                                                                                                                                                     1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 34
BX108271/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                              g
                                                                                                                                        8 G
                                                                                                                                                                                                               品 格 品 格 品
                                                                                                                                                                                                                                                                                                                                                                                                                                         ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ם
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
```

```
/note="Organ: pooled; Vector: pT7T3D-Pac (Pharmacia) with a modified polylinker; Site 1: Not 1; Site 2: Eco RI; Equal amounts of plasmid DNA from three normalized libraries (fetal lung NbHL19W, testis NHT, and B-cell NCI CGAP GCB1) were mixed, and ss circles were made in vitro. Following HAP purification, this DNA was used as tracer in a subtractive hybridization reaction. The driver was PCR-amplified cDNAs from pools of 5,000 clones made from the same 3 libraries. The pools consisted of I.M.A.G.E. clones 297480-302087, 682632-687239, 726408-728711, and 729096-731399. Subtraction by Bento Soares and M. Fatima Bonaldo. "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HANDENOS

HOMO Sapiens

HOMO HOMO SAPIENS

HOM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    585 bp mRNA linear EST 05-MAR-2002 S9SNU601 Homo sapiens cDNA clone S9SNU601-32-E11 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hahn, Y., Oh, J.H., Lee, J.Y., Ahn, H.Y., Chu, M.Y., Kim, M.R., Cheong, J.E., Sohn, H.Y., Kim, J.M., Park, H.S., Kim, S. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PGGGAGGCTGAGGAGGAAGGATCACTTGAGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          276 AAGTICGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTCTACAAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       216 AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           156 GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTCTACAAAATACAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 395;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCTAGGAAGTAGGTTAAAACTAATTCTT 2118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15.8%; Score 336; DB 9; Lilarity 100.0%; Pred. No. 2.8e-59; Conservative 0; Mismatches 0;
/clone_lib="Soares_NFL_T_GBC_S1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          yongsung@mail.kribb.re.kr
32 row: E column: 11
ality sequence stop: 585.
Location/Qualifiers
1. 585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 336; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1903 AAAATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96 CTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BM785703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 36
BM785703
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
```

q

ਨੋ

엄

ð

qq

ద

ò

g

ð

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 661)

Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R., Oh,K.J., Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,H.S., Kim,S. and Kim,Y.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EM791792 661 bp mRNA linear EST 05-MAR-2002
K-EST0071870 S21SNU520 Homo sapiens cDNA clone S21SNU520-21-E06 5',
                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                    1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2022
                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                                                                            256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      317 GGAGGATCACTIGAGCCCAGGGGGTTGGGGCTGCAGTGAGCCATGATCACACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1843 AAGTICGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTCTACAAAATACAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                 197 AAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTCTACAAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1903 AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                        Length 585;
                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15.8%; Score 335.8; DB 12; llarity 99.4%; Pred. No. 2.9e-59; Conservative 0; Mismatches 2; ]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCAAGTCCTAGGAAGTAGGTTAAAACTAATTCTTTAA
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="S9SNU601-32-E11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BM791792.1 GI:19140024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA sequence.
BM791792
                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                Matches 337;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 37
BM791792
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

TITLE

```
clone 9130209K06 5', mRNA sequence
                                          BB625263.1
                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
COMMENT
                                                                                                                                                                         REFERENCE
AUTHORS
                         ACCESSION
                                            VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                             y ongaungemail.Kribb.re.kr

y: 1 row: E column: 06
quality sequence stop: 661.
Location/Qualifiers

1. .661

Location/Qualifiers

1. .661

/organism="Homo sapiens"
/wol_type="mRNA"
/wol_type="mRNA"
/wol_type="mRNA"
/wol_type="stomach"
/coll_type="Floating aggregates"
/tissue_type="Floating aggregates"
/cince="S21SNU520"
/lab host="Toplof"
/coll_line="SNU-520"
/lab host="Toplof"
/coll_line="SNU-520"
/lab host="Toplof"
/coll_line="SNU-520"
/lab host="Toplof"
/clone lib="S21SNU520"
/lab host="Toplof"
/clone lib="S21SNU520"
/lab host="Toplof"
/clone lib="S21SNU520"
/lab host = Toplof"
/clone lib="S1SNU520"
/lab host = Clone was dephosphorylated with bactering with bactering with DNA-NNA linker including EcoR interpretated with Brand vector. The dT-tailed vector was adjusted to have about 60nt. The CDNA vector was adjusted to a DNA strand by Okayama-Berg method. The converted to a DNA strand by Okayama-Berg method. The obtained cDNA vectors were used for transformation of competent cells E coll Toplof"
/The cDNA libraries constructed by this method are full-length enriched cDNA library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               633 bp mRNA linear EST 26-OCT-2001
KEN full-length enriched, adult male cecum Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1843 AAGTICGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTCTACAAAATACAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    335 AAAATCAGCCAGTCATGGTGGCCTACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 15.8%; Score 335.8; DB 12; Length 661; Best Local Similarity 99.4%; Pred. No. 2.9e-59; Matches 337; Conservative 0; Mismatches 2; Indels 0;
Unpublished (2002)
Contact: Kim YS
Genome Research Center
Korea Research Institute of Bioscience & Biotechnology
52 Eoeun-dong Yuseong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4470
Fax: +82-42-860-4409
Email: yongsung@mail.kribb.re.kr
Plate: 21 row: E column: 06
High quality sequence stop: 661.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGTCATGGTGGCATACACCTGTAGTCCCAGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTAGGAAGTAGGTTAAAACTAATTCTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cagcaagrectaggaagraggraaarcraarrerraa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 38
BB625263
LOCUS
BB625263
DEFINITION
BB625263
RI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGGATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2023
 JOURNAL
                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
```

```
Fax: 81-45-503-9216

Email: genome-res@gesc.riken.go.jp,
URL.http://genome.gesc.riken.go.jp/
Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K.,
Itoh,M., Komno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNas to prepare full-length cDNA libraries for rapid discovery of new genes. Genome Res. 10 (10), 1617-1630 (2000)

wagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T.,
Matsuura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y.

RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer. Genome Res. 10 (11), 1757-1771 (2000)

Konno,H., Fukunishi,Y., Shibata,K., Itoh,M., Carninci,P.,
Sugahara,Y. and Hayashizaki,Y.
Computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of a nonredundant cDNA library. Genome Res. 11 (2), 281-289 (2001)

Kondo,S., Shinagawa,A., Saito,T., Kiyosawa,H., Yamanaka,T.,
Aizawa,K., Fukuda,S., Hara,A., Itoh,M., Kawai,J., Shibata,K. and Hayashizaki,Y.
Computational Analysis of Full-Length Mouse cDNAs Compared with Human Genome Sequences. Mamm. Genome. 12, 673-677 (2001)
Please visit our web site (http://genome.gec.riken.go.jp) for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Yoshibide Hayashizaki
Laboratory for Genome Exploration Research Group, RIKEN Genomic
Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-922
                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 633)

Arakawa, T., Carninci, P., Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hiramoto, K., Hori, F., Ishii, Y., Ito, M., Kawai, J., Konno, H., Kouda, M., Koya, S., Matsuyama, T., Miyazaki, A., Nomura, K., Ohno, M., Okazaki, Y., Okido, T., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagami, M., Tagawa, A., Takahashi, F., Takeda, Y., Tanaka, T., Toya, T., Muramatsu, M. and Hayashizaki, Y. RIKEN Mouse ESTS (Arakawa, T., et al. 2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       prepared by using trehalose thermo-activated reverse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="9130209K06"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       e mouse tissues.
Location/Qualifiers
                                                              Mus musculus (house mouse)
GI:16463563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bex="male"
                                                                                                 Mus musculus
```

```
Contact: Robert Strauszers.

Email: cgapbs-r@mail.nih.gov
   Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael M.
   Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Ph.D., Emmert-Buck, M.D., Ph.D.
   CDNA Library Preparation: Life Technologies, Inc.
   CDNA Library Arrayed by: Greg Lennon, Ph.D.
   DNA Sequencing by: Washington University Genome Sequencing Center
   Clone distribution: NCI-CGAP clone distribution information can be
   found through the I.M.A.G.E. Consortium/LLNL at:
   www-bio.llnl.gov/bbrp/image.html
   Insert Length: 2362 Std Error: 0.00
   Seq primer: -400P from Gibco
   High quality sequence stop: 381.
   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/dlone="IMAGE:2459693"
/tissue_type="poorly differentiated adenocarcinoma with signet ring cell features"
/lab host="DH10B"
/lone lib="NCI CGAP Gas4"
/lone="Organ: sTomach; Vector: pCMV-SPORT6; Site 1: Sal1;
/note="Organ: sTomach; Vector: pCMV-SPORT6; Site 1: Sal1;
Site_2: Not1; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.69 kb. Life Technologies catalog #:
11549-011"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AI187329
483 bp mRNA linear EST 29-OCT-1998 qe26c02.x1 Soares fetal lung NbHL19W Homo sapiens cDNA clone IMAGE:1740098 3' Fimilar to contains Alu repetitive element;, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 483)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      277 AAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCTGTCTCTACAAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAGGATCACTTGAGCCCAGGGAGGTTGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGTICGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTTACAAAATACAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            217 AAAATCAGCCGGTCATGGTGGCATACACCTGTAGTCCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAGGATCACTTGAGCCCCAGGGAGGTTGGGGCTGCAGTGAGCCCATGATCACCACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        403;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15.8%; Score 335.4; DB 9;
llarity 99.7%; Pred. No. 3.7e-59;
Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GI:3737967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence.
AI187329
AI187329.1
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   336;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 40
AI187329/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                             FEATURES
                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ਠੇ
                                 403 bp mRNA linear EST 08-MAR-2000 NCI CGAP Gas4 Homo sapiens cDNA clone IMAGE:2459693 3' contains Alu repetitive element;, mRNA sequence.
                 subsequently enriched for full-length by
                                                                                                                                                                                                                                                                                                                                             m
                                                                                                                                                                                                                                                                                                                                                                                               146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wetazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 to 403)
http://www.ncbi.nlm.nih.gov/ncicgap.
Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                             CCACCACCACATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGGCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                231 Tricacceaereceaeceracricacecrerreceerreceaecearecrecaaecrera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGAGCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCCATCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCICCGGGAICAIGITCAITGICICAGGICITIGIGCAAIIGCIGGAGIGICIGIGITI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCGCGCCACCGGGATGGACATGTGGAGCACCCCAGGACCTGTACGACAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGTGTTCCAGTACGAAGGCTTCTGGAGGAGCTGCGTGAGGCAGAGTTCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gradicecteratricaleraciales describing de la contra della 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      387 GCCCTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAACATGACACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCAACATGCTGGTGACCAACTTCTGGATGTCCACAGCTAACATGTACAGCGGCATGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGGGATGGTGCAGACTGTTCAGACCAGGTACACATTTGGTGCGGC-TCTGTT
                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                             11;
                                                                                                                                                                                                                                                                                            DB 10; Length 633;
                                                                                                                                                                                                                                                                                          Score 335.6; DB 10; Length
Pred. No. 3.2e-59;
0; Mismatches 114; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGGTCGCTGGAGGCCTCACAC
                 transcriptase and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCTGGTGACTAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           woodb03.x1 NCI_CGAP_Gas4
similar to contains Alu
A1926840
A1926840.1 GI:5662804
EST.
Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chor
Mammalia; Eutheria; Prim
1 (bases 1 to 403)
NCI-CGAP_http://www.ncbi
                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 78.1%;
Matches 445; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ed (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           National (
Tumor Gene
Unpublish
                                                                                                                                                                                                                                                                                                                                                                                           87 ATCATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           147 GGCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGT-GGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AI926840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 39
AI926840/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                        ORIGIN
```

음 성 음

셤

à

ð

\$ 8 \$

В

õ

셤

à

원

1962

158

ö

278

2022

98

```
BM829469

K-EST0102455 S9SNU601 Homo Bapiens cDNA clone S9SNU601-60-D12 5', mRNA sequence.

BM829469

BM829469.1 GI:19185864
                                                                                                                                                                                                                                                                                                                            1902
                                                                                                                                                                                                                                                                                                                                                          1962
                                                                                                                                                                                                                                                                                                                                                                                                                        2082
                                                                                                                                                                                                                                                                                            IGTAATCCTAGCACTTTGGGAGGCTGAGGAGGAAGGATCACTTGAGCCCCAG 1842
                                                                                                                                                                                                                                                                                                                                                                                         2022
                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                          217
                                                                                                                                                                                                                                                                                                                                                                         157
                                                                                                                                                                                                                                                                                                                                                                                                       97
                                                                                                                                                                                                                                                                                                                                                                                                                                      37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                          AAAATCAGCCGGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                  CAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                        TTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                            .,
                                                                                                                                                                                                                                                             Score 334.4; DB 9; Length 483; Pred. No. 5.9e-59; 0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                            1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    _
                                                                                                                                                                                                                                                                                                                                                                                                                                                    2083 CAGCAAGTCCTAGGAAGTAGGTTAAAACTAATTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGCAAGTCCTAGGAAGTAGGTTAAAACTAATTCTT
                                                                                                                                                                                                                                                             15.8%; g
y 99.7%; l
rvative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST.
Homo sapiens (Homo sapiens Eukaryota; Met
                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 335; Conser
                                                                                                                                                                                                                                                                                            1783 GCTCACACC
                                                                                                                                                                                                                                                                                                                                                         AAAATCAGC
                                                                                                                                                                                                                                                                                                                                                                                       GGAGGATCA
                                                                                                                                                                                                                                                                                                                                                                        216
                                                                                                                                                                                                                                                                                                                                                                                                                                     96
                                                                                                                                                                                                                                                                                                                                                         1903
                                                                                                                                                                                                                                                                                                                                                                                       1963
                                                                                                                                                                                                                                                                                                                                                                                                      156
                                                                                                                                                                                                                                                                                                                                                                                                                      2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36
                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 41
BM829469
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
SOURCE
ORGANISM
              JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                             FEATURES
TITLE
                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                      ਠੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
```

```
/ussue_type="Ascites"
/cell_type="Epithelial"
/cell_type="Epithelial"
/cell_type="Fpithelial"
/cell_type="SNU-601"
/lab_host="ToplOF'"
/clone_lib="S9SNU601"
/note="Organ: Stomach; Vector: pMEIB-FL3; Site_1: Xhol;
Site_2: Xhol; The poly (A) + RNA was dephosphorylated with bacterial alkaline phosphatase (BAP) and then decapped with tabacco acid pyrophosphatase (TAP). The decapped intact mRNA was ligated with DNA-RNA linker including Sfil site by treatment of T4 RNA ligase and the first strand cDNA was synthesized with Superscript II using Sfil oligo-dT primer. After first strand synthesis, RNA was degraded by NaOH treatment and cDNA was amplified by PCR reaction. The PCR products were digested with Sfil and cloned into DraIII- digested pMEI85-FL3 vector. The obtained cDNA vectors were used for transformation of competent cells E. coli ToplOF' by electroporation method. The cDNA libraries constructed by this method are full-length enriched cDNA library."
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 593)
Kim, N.S., Hahn, Y., Oh, J.H., Lee, J.Y., Ahn, H.Y., Chu, M.Y., Kim, M.R., Oh, K.J., Cheong, J.E., Sohn, H.Y., Kim, J.M., Park, H.S., Kim, S. and Kim, Y.S.
21C Frontier Korean EST Project 2001
Unpublished (2002)
Contact: Kim YS
Genome Research Center
Korea Research Institute of Bioscience & Biotechnology
52 Eoeun-dong Yuseong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4470
Fax: +82-42-860-4470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGTICGAGACTAGCCTGGCCAACATGGAGAAGCCCTGTCTTCTACAAAATACAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAATCAGCCAGTCATGGTGGCCTACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTCTACAAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 593;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15.8%; Score 334.2; DB 12; Length larity 99.1%; Pred. No. 6.3e-59; Conservative 0; Mismatches 3; Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCAAGTCCTAGGAAGTAGGTTAAAACTAATTCTTTAA 2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCAAGTCCTAGGAAGTAGGTTAAAACTAATTCTTTAA 471
                                                                                                                                                                                                                                                                                                                                                                                                         sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="S9SNU601-60-D12"
                                                                                                                                                                                                                                                                                   Email: yongsung@mail.kribb.re.kr
Plate: 60 row: D column: 12
High quality sequence stop: 593.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bex="M"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
nes 336; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      433
                         REFERENCE
AUTHORS
                                                                                                              TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       යු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
```

```
source
BB529462
LOCUS
                                                                           DEFINITION
                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                              ACCESSION
                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                     MW027675

WW002675

WW002675

WW0006.x1 NCI CGAP Gas4 Homo sapiens CDNA clone IMAGE:2533931 3'
similar to concains Alu repetitive element;, mRNA sequence.

NAW027675

AW027675.1 GI:5886431

SET.

Homo sapiens (human)

ISM NCI-CGAP http://www.ncbi.nlm.gov

Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.

Emmail: cgapbs-remail.nih.gov

Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.

Emmail: cgapbs-remail.nih.gov

Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Contact: Robert Straushopher Moskaluk, Ph.D.

Contact: Robert Straushopher Moskaluk, M.D., Ph.D., Contact: Romert-Buck, M.D., Ph.D.

Contact: Robert Straushopher Moskaluk, M.D., Ph.D., Contact: Robert Straushopher Moskaluk, M.D., Ph.D.

Contact: Robert Straushopher Moskaluk, M.D., Ph.D., Contact: Romert-Buck, M.D., Ph.D.

Contact: Robert Straushopher Moskaluk, M.D., Ph.D., Cond Allbrary Arrayed by: Greg Lennon, Ph.D.

Connact: Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.B. Consortium/LMN at:

Www-bio.llnl.gov/bbrp/image/image.html

Seq primer: -40UP from Gibco.

June Location/Qualifiers

June Location/Qualifiers

Jane Robert Straushopher Straushopher Moskaluk, M.D., Ph.D.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:2533931"
/tissue_type="poorly differentiated adenocarcinoma with signet ring cell features"
/lab_host="DH10B"
/clone_lib="NCI_CGAP_Gas4"
/clone_lib="NCI_CGAP_Gas4"
/note="Organ: stomach; Vector: pCMV-SPORT6; Site_1: Sall; Site_2: Not1; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.69 kb. Life Technologies catalog #:1549-011"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1843 AAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTCTACAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1903 AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               217 AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACTTGAGCCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BAGACTAGCCTGGGCAACATGGAGAAAGCCCTGTCTCTACAAAATACAGAGAGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 367;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCAAGTCCTAGGAAGTAGGTTAAAACTAATTCTTT 2119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 333.8; DB
Pred. No. 8e-59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 15.7%;
Best Local Similarity 99.4%;
Matches 335; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCCAGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      277 AAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2023
                                                                                                                      ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
     RESULT 42
AW027675/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
```

```
DECISION OF SUBSTRICT OF THE STATE OF THE STATE OF SUBSTRICT OF SUBSTR
```

1 (bases 1 to 548)
Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T., Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and

Waterston, R.
The WashU-HHMI Mouse EST Project

Unpublished (1996)
Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
WashIngton University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1810
Fax: 314 286 1810
Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.

MG1:003003 Seq primer: -28m13 rev1 ET from Amersham High quality sequence stop: 440. Location/Qualifiers

MGI:669664

1. .548

/organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/6 x CBA"
/db_xref="taxon:10090"
/clone="IMAGE:1277864"

'sex="female"

Euteleostomi;

Craniata; Vertebrata; E Sciurognathi; Muridae;

Chordata; Rodentia;

Mus musculus (house mouse)
Mus musculus
Eukaryota; Metazoa; Chorda
Mammalia; Eutheria; Rodent

ORGANISM

GI:2991332

AA882221.1 EST.

```
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                TITLE
JOURNAL
COMMENT
                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                     FEATURES
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          691
                                                                                                                                                                                                                                                                                                                       751
                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       539
                                                                                                                                                                                                                                                                                                                                                                      811
                                                                                                                                                                                                                                                                                                                                                                                                                    871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        479
                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                    1 TGGAGGCCTCACCCTGATTGGGGAGTGATGTGCATCGCCTGCCGTGGCCTGACACC
                                                                                                                                                                                                                                                                                                                    CAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCCTACAA
                                                                                                                                                                                                                                                                                                                                      TCTAAATATTCCACCATAAAACAGCTGAGTTA---TTTATGAATTAGAGGCTATAGCTCA
                                                                                                                                                                                                                                                                    632 IGGAGGCCTCACACTAATTGGGGGTGTGATGATGTGCATCGCCTGCCGGGGCCTGGCACC
                                                                                                                                                                                                                                                                                                                                                                   360 TGGTAAAGCCTGATTTTCATCCATAGGAGGCTAGACAGTCTTGGCCACATGTGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                     CTTTAAGGCCAGCACCTGGCTTTGGGTCCAACACCAGAAACAAGAAGATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                     181 CGATGGGGGTGCCCGCACAGAAGACGATGAACAGTCTCATCCTACCAAGTATGACTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGAGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 Gragiecricraagacceccaaccierereresagagaaccierrececaagaagagaciea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 CCC-CAAAGCAACGGAAGTCTACCTTGTTCCTTGTTGATTTCAACTGACATCTGAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420 TCTAAATATCCCATCACAAAACAGCTGAGTTATCGTTTATGAGTTAGAGGCCATAACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATITICAAICCICIAITITITITIAAAIAIAACI - - TICIACICIGAIGAGAAIG
                                                                                                                                                                                                                                                                                                                                                                                                                   IGCCCGCACAGAGGAGGTACAATCTTATCCTTCCAAGCACGACTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              984 TAGAAAAGCCTCGATTTCATCTTTGGAGGCCAAATGGTCTTAGCCTCA-GTCTCTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                924 CCCAAAAAACAAGGAGATCCCATCTAGATTTCTTCTTGCTTTTGACTCACAGGTGGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480 cacririageccaacecrerecriririaeceragaerrireriricarcregardard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540 GAATTTGACTCACAGACTAATACTTTAATGGTTTAGAGAAACTTTC---CTTCCTCGTAC
                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCATTGATGATCTATTTCCCAGCTTATCCCCAAGAAACTTTTG 1270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      649
                                                                                                                                                                                                                                                18;
                                                                                                                                                                                                                        DB 10; Length 649;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14.9%; Score 315.4; DB 10; Length 74.1%; Pred. No. 5.1e-55; ive 0; Mismatches 151; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAAGACCTCTCAGCACGGGGAAGAACTCCC
                                                                                                                                                                                                                   Query Match
Best Local Similarity 74.1
Matches 484; Conservative
                                                                                                                                                                                                                                                                                                                                          61 AGATGACAG
                                                                                                                                                                                                                                                                                                                                                                  GCCTGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1218 TCAATAAAC
                                                                                                                                                                                                                                                                                                                    692 AGAAGAAAC
                                                                                                                                                                                                                                                                                                                                                                                        121 GCCTGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                 CGATGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTAATGCTC
                                                                                                                                                                                                                                                                                                                                                                  752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1100
                                                                                                                                                                                                                                                                                                                                                                                                                 812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                872
                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                    ਠੋ
                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                  જ
                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ОĎ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
```

```
185
                                                                                                                                                                                                                                                                                                                     205
                                                                                                                                                                                                                                                                                                                                           245
                                                                                                                                                                                                                                                                                                                                                                   265
                                                                                                                                                                                                                                                                                                                                                                                         305
                                                                                                                                                                                                                                                                                                                                                                                                                                       365
                                                                                                                                                                                                                                                                                                                                                                                                                323
                                                                                                                                                                                                                       87
                                                                                                                                                                                                CCCTCAGGAGCGCGTTAGCTTCACACCTTCGGCAGCAGGAGGGCGGCAGCTTCTCGCAGG
                                                                                                                                                                                                                      ccccagcdadgccccgagdcgrngnaaccrrccagcaadaggggggggggrdcrccag
                                                                                                                                                                                                                                              67 CGGCAG-GGCGGCCGAGGATCATGTCCACCACCACATGCCAAGTGGTGGCGTTCCTC
                                                                                                                                                                                                                                                            AGCCTGCGCCCAGCTGAAGCCATGGCCACCACGTGCCAGGTGGTAGGGCTTCTC
                                                                                                                                                                                                                                                                                           CTGTCCATCCTGGGGCTGGCGGCTGCATCGCGGCCACCGGGATGGACATGTGGAGCACC
                                                                                                                                                                                                                                                                                                         CAGGACCTGTACGACAACCCCGTCACCTCCGTGTTCCAGTACGAAGGGCTCTGGAGGAGC
                                                                                                                                                                                                                                                                                                                                                         TGCGTGAGGCAGAGTTCAGGCTTCACCGAATGCAGGCCCTATTTCACCATCCTGGGACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAGCCATGCTGCAGGCAGCTGGAGCCTGATGATCGTAGGCATCGTCGGTGCCATT
                                                                                                                                                                                                                                                                                                                                                                                                              recere-cacacacacreeserrea-ceaerecesecaracricacearecresecrr
                                                                                                                                                                            Gaps
                                                                                                                                                                          5;
                                                                                                                                                    548;
                                                                                                                                                    Length
                                                                                                                                                                          Indels
                                                                                                                                                Query Match 14.5%; Score 308.2; DB 9; Best Local Similarity 79.0%; Pred. No. 1.6e-53; Matches 415; Conservative 0; Mismatches 105;
                                                                                                                                                                                                ~
                                                                                                                                                                                                                       58
                                                                                                                                                                                                                                                                                           126
                                                                                                                                                                                                                                                                                                                  148
                                                                                                                                                                                                                                                                                                                                          186
                                                                                                                                                                                                                                                                                                                                                                206
                                                                                                                                                                                                                                                                                                                                                                                       246
                                                                                                                                                                                                                                                                                                                                                                                                              266
                                                                                                                                                                                                                                                                                                                                                                                                                                     306
                                                                                                                            ORIGIN
                                                                                                                                                                                                ਨੇ
                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                              ਨੇ
                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                      à
```

EST 26-MAR-1998

AA882221
vx42c05.rl Stratagene mouse lung 937302 Mus musculus cDNA clone IMAGE:1277864 5' similar to TR:P78369 P78369 PUTATIVE
OLIGODENDROCYTE-SPECIFIC PROTEIN ;, mRNA sequence.

RESULT 44
AA882221
LOCUS
DEFINITION

```
Search completed: September Job time: 3744 secs
                                                                                                                                                                                                                                                                                                               440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               578
                                                                                                                                                                                                                                                                                                                                                        1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1437
                                                                                                                                                                                                                                380
                                                             260
                                                                                                      1031
                                                                                                                                             320
                                                                                                                                                                                       1086
                                                                                                                                                                                                                                                                                                                                                                                               479
                     971
                                                                                                                                                                                                                                                                       1143
                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                      ⋩
                                                                                                                                   g
                                                                                                                                                                             ŏ
                     ठ
                                                          g
                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                         CE210717

GSS.

Canis familiaris (dog)

Canis familiaris (dog)

Canis familiaris

Canis fa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   852
   383
                                           425
                                                                                    443
                                                                                                                             485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTCCAAGCACGACTATGTGTAATGCTCTAAGACCTCTCAGCACGGGGGGAAGAAACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C--GGAGAGCTCACCCAAAAAACAAGGAGATCCCATCTAGATTTCTTCTTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAAGAAGATATACGATGGAGGTGCCCGCACAGAGGACGAGGTACAATCTTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTCCAAGTACGACTATGTGTAGCATTCCAAGGCACCTCAGCATGGGCAGGAAGAACCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           324 CCAGCCATGCTGCAAGCTGTACGAGCCCTGATGATCGTGGGCATTGTTCTGGGGGTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20 ecccaarerecerraciaedeceaecerreaideceaeceaeceaeceaeceaecae
                                                                                                                                                          GCCAAAGCCAACATGACACTGACCTCCGGGATCATGTTCATTGTCTCAGGTCTTTGTGCA
                                             GGCCTCCTGGTATCCATCTTTGCCCTGAAATGCATCCGCATTGGCAGCATGGAGGACTCT
                                                                  184 GGTATCCTCGTGTCCATCTTCGCCCTGAAGTGCATTCGCATTGGTAGCATGGATGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 shotgun.
Location/Qualifiers
1. .731
/organism="Canis familiaris"
/mol type="genomic DNA"
/strain="Standard Poodle"
/db_xref="taxon:9615"
/clone lib="bog Library"
/note="Site 1: BstXI; Libraries were prepared fro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FIGITGCCTACAAGCCTGGAGGCTTCAAGGCCCAGCACTGGCTTTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 731;
                                                                                                                                                                                                                 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                      ATTGCTGGAGTGTCTGTGTTTGCCAACATGCTGGTGACTAACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 308; DB 29; I
Pred. No. 1.7e-53;
0; Mismatches 145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 14.5%;
Best Local Similarity 72.2%;
Matches 536; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  793 CCAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              80 GCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       913
                                                                                                                                                                                                                 486
                                                                                                                                                                                                                                                        504
                                                                                                                                 426
                                                                                                                                                                        444
                                                366
                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                  RESULT 45
CE210717
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                   ਨੋ
                                                                                                                                                                                                    ਠੋ
```

```
1085
                                                                                                                                 1142
                                                                                                                                                                                                                                                                                                       1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1436
                                                                                                                                                                                                               517
                                                                                                                                                                                                                                                                                                                                                                                                                                   577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              694
                                                                               acreficircreferricrancrarcareaaaacaereaerrareaerrareaarra
                                                                                                                               TTTTAAATATAACTTTCTAC
                                                                                                                                                       CAATTCTGAAAGTAAAAAGGAGAGAGTCCATCAAAAGACATCATTTCCTACTATTGATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TIGICICCCACCCCAACTIGGCTAGTAATAAACACTTACTGAAGAAGAAGAAGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAACCTCCCCA--GCCTACTTGGCTACTAATAAACACTGATTGAAGTAG-AGCTGATAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAAGATATTTGTAATCTCTCCAGCCCATGATCTCGGTTTTCTTACACTGTGATCTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           635 GAAAGATATTTGTAATGTCTCCAGCTCATTATCTGAGTTTTCTTACACTGGGATCTTGAC
                                            TCAGTCTC - TGTCTCTAAATATTCCACCATAAAACAGCTGAGTTAT - - TTATGAATTA
                                                                                                                                                                                                                                                                                                                                  1263 AACTITIGAAAGGAA----AGAGTAGACCCAAAGAIGTIAITITCIGCTGTTIGAATI
cacagridaaagraagaaaaccrigarricarccggaagaagaggccagarggricrggcc
                                                                                                                                                                                                                                                                                                       CCCTCTTCCTCCTAGTCAATAAACCCATTGATGATCTATTTCCCCAGGTTATCCCCAAGAA
                                                                                                                                  GAGGCTATAGCTCACATTTTCAA---TCCTCTATTTCTTT
                                                                                                                                                                                                                                                              rcreargararareregrireaarrecrareaacaar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2, 2004, 17:25:50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTTACCAAACCAAAGTCATTT 1458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTACCTGGACTGAAGCGATTT
```

```
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
```

OM protein - protein search, using sw model

1; Search time 49 Seconds (without alignments) 1675.795 Million cell updates/sec 1, 2004, 16:47:01 September Run on:

Title: Perfect score: Sequence:

US-10-063-731-118 1357 1 MSTTTCQVVAFLLSILGLAG......DGGARTEDEVQSYPSKHDYV 261

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

seqs, 314612898 residues 1297172 Searched:

Total number of hits satisfying chosen parameters:

2000000000 Minimum DB seq length: Maximum DB seq length:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*

cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*

cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*

cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*

cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*

cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*

cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*

cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*

cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*

cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*

cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*

cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*

cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*

cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*

cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*

cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*

cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*

cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*

cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*

cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*

cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*

cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*

cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:* Published Applications AA:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query	Query Match Length DB	מ	£		
!	2 1		11761124	ָ מַ		Description	
	1357	100.0	261	10	US-09-946-374-326	THE SECTION OF SECTION	
	1357	100.0	261	12	US-10-206-915-356	ָ ק ק ק	<u>ک</u> ر (
	1357	100.0	261	12	US-10-199-670-356	200	<u>ب</u> م
	1357	100.0	261	12	US-10-201-858-156		a A
	1357	100.0	261	12	US-10-205-890-356	י ט ט ט ט ט ט	<u>ب</u> ج
	1357	100.0	261	12	US-10-208-024-356		<u> </u>
	1357	100.0	261	12	13-10-201-853-356	200	<u>ب</u> م
	1357	100.0	261	12	TIS-10-063-745-118	0 -	<u>સ</u>
	1357	100.0	261	10	TIS-00-040-01-01	, פיני	<u>ع</u> ر -
	1357	100	261	15	TIG-10-062-613-0	0 ;	7.
	1267		1 0	1 6	DTT-7TC-000-0T-CO	, א דד	ğ
	CCT	100.0	797	77	US-10-063-513-118		ō
	1357	100.0	261	12	US-10-063-515-118	2	4 5
	1357	100.0	261	12	US-10-063-549-118	, מ נו	ų <u>ç</u>
	1357	100.0	261	12	US-10-063-569-118	9 1	ja k
	1357	100.0	196	13	116-10-062-661-10	,	24
)) 1	1	1	077-700-000-07-00	Sequence II8. An	Q

App App App App App App App App App App	App App App App
3356, 3356, 3356, 3356, 3356, 3356, 3356, 3356, 3356, 3356, 3356, 3356,	356, 356, 356, 356,
Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Seq	Sequence Sequence Sequence Sequence
1.174 - 581 - 35 1.176 - 483 - 35 1.176 - 914 - 35 1.176 - 915 - 91 1.176 - 915 - 91 1.176 - 91	-10-196-755-3 -10-196-757-3 -10-197-704-3 -10-197-710-3
	7777
2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 2611292 26112011201000000000000000000000000000	261 261 261 261
	100.0
1357 1357 1357 1357 1357 1357 1357 1357	1357 1357 1357
11111000000000000000000000000000000000	4 4 4 7 6 4 5

ALIGNMENTS

```
APPLICANT: Smith, Victoria
APPLICANT: Stewart, Timothy A.
APPLICANT: Stewart, Timothy A.
APPLICANT: Stewart, Timothy A.
APPLICANT: Tumas, Daniel
APPLICANT: Tumas, Daniel
APPLICANT: Watanabe, Colin K.
APPLICANT: Williams, P. Mickey
APPLICANT: Williams, P. Mickey
APPLICANT: Williams, P. Mickey
APPLICANT: William I.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2830PLC1
CURRENT APPLICATION NUMBER: US/09/946,374
CURRENT FILING DATE: 1998-09-01
PRIOR FILING DATE: 1998-09-01
                                                                                                               Baker, Kevin P.
Botstein, David
Botstein, David
Besnoyers, Luc
Eaton, Dan L.
Ferrara, Napoleone
Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
Godowski, Paul J.
Grimaldi, Christopher J.
Gurney, Austin L.
RESULT 1
US-09-946-374-326
; Sequence 326, Application US/09946374
; Publication No. US20030073129A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                             Pan, James
Paoni, Nicholas F.
Roy, Margaret Ann
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
Watanabe, Colin K.
Williams, P. Mickey
                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                               APPLICANT
APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
```

NUMBER: 60/100919 5: 1998-09-17 NUMBER: 60/100930 5: 1998-09-17 3: 1998-09-17 N NUMBER: 60/100848 3: 1998-09-18 N NUMBER: 60/100849 3: 1998-09-18 E: 1998-09-17 N NUMBER: 60/100684 E: 1998-09-17 N NUMBER: 60/100710 : 1998-09-15 7 NUMBER: 60/100584 2: 1998-09-16 7 NUMBER: 60/100627 /100919 NUMBER: 60/101279 1998-09-22 : 1998-09-09 NUMBER: 60/099598 : 1998-09-09 NUMBER: 60/099602 1998-09-18 NUMBER: 60/101068 NUMBER: 60/101071 1998-09-18 199001, NUMBER: 60/100390 : 1998-09-17 NUMBER: 60/100711 NUMBER: 60/101014 NUMBER: 60/099792 1998-09-10 100662 NUMBER: 60/100683 NUMBER: 60/099642 1998-09-09 099808 NUMBER: 60/099812 099815 60/099816 60/100385 100388 100664 1998-09-02 NUMBER: 60/098843 1998-09-02 099741 099763 NUMBER: 60/099596 099754 : 1998-09-16 NUMBER: 60/1 1998-09-18 NUMBER: 60/(1998-09-10 1998-09-10 1998-09-10 NUMBER: 60/1 NUMBER: 60/ 1998-09-09 1998-09-09 NUMBER: 60, 1998-09-1(FILING DATE:
APPLICATION |
FILING DATE: PILING DATE:
APPLICATION N
FILING DATE: FILING DATE:
APPLICATION:
FILING DATE:
APPLICATION: FILING DATE:
APPLICATION
FILING DATE: FILING DATE APPLICATION PRIOR PRIOR

PRIOR FILING DATE: 1998-09-23
PRIOR APPLICATION NUMBER: 60/101474
PRIOR APPLICATION NUMBER: 60/101474
PRIOR APPLICATION NUMBER: 60/101475
PRIOR PLILNG DATE: 1998-09-23
PRIOR PLILNG DATE: 1998-09-24
PRIOR PLILNG DATE: 1998-09-24
PRIOR PLILNG DATE: 1998-09-24
PRIOR PLILNG DATE: 1998-09-24
PRIOR PELICATION NUMBER: 60/101749
PRIOR PLILNG DATE: 1998-09-24
PRIOR PLILNG DATE: 1998-09-29
PRIOR PLILNG DATE: 1998-09-30
PRIOR PLILNG DATE: 1998-09-30
PRIOR PLILNG DATE: 1998-00-07
PRIOR PLILNG DATE: 1998-00-08
PRIOR PLILNG

```
120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                           MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCYRQSSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                   TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC ACIDS ENCODING THE SAME
                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                           Query Match 100.0%; Score 1357; DB 10; Best Local Similarity 100.0%; Pred. No. 2.7e-132; Matches 261; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Baker, Kevin P.
APPLICANT: Baker, Kevin P.
APPLICANT: Chen, Jian
APPLICANT: Chen, Jian
APPLICANT: Godowski, Paul J.
APPLICANT: Godowski, Paul J.
APPLICANT: Godowski, Paul J.
APPLICANT: Gurney, Austin L.
APPLICANT: Smith, Victoria
APPLICANT: Acids Encoding THE SAME
ITLE OF INVENTION: ACIDS ENCODING THE SAME
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3430R1C513
CURRENT APPLICATION NUMBER: 10/052586
PRIOR FILING DATE: 2002-01-15
PRIOR FILING DATE: 2002-01-15
PRIOR FILING DATE: 1997-09-18
PRIOR FILING DATE: 1997-09-18
PRIOR FILING DATE: 1997-09-18
PRIOR FILING DATE: 1997-09-18
                                                             A PELLING DATE: 1998-10-20

R RILING DATE: 1998-10-20

R APPLICATION NUMBER: 60/105002

R APPLICATION NUMBER: 60/105104

R FILING DATE: 1998-10-21

R APPLICATION NUMBER: 60/105169

R FILING DATE: 1998-10-22

R APPLICATION NUMBER: 60/105266

DR FILING DATE: 1998-10-22

R APPLICATION NUMBER: 60/105693

DR FILING DATE: 1998-10-26

OR APPLICATION NUMBER: 60/105694

OR PILING DATE: 1998-10-26

OR APPLICATION NUMBER: 60/105694

OR PILING DATE: 1998-10-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tion US/10206915
40029221A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YDGGARTEDEVOSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JMBER: 60/105000
1998-10-20
                      104987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 2
US-10-206-915-356
; Sequence 356, Applicati
; Publication No. US20040
; GENERAL INFORMATION:
                                                    APPLICATION N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VDGGARTED
 FILING DATE:
APPLICATION N
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TECRPYFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                 Т
                                                                                                                                                                                                                                                                                                                                                                                                                                  Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठ
```

```
APPLICANT: DESNOYERS, LUCC
APPLICANT: Goddward, Audrey
APPLICANT: Goddward, Audrey
APPLICANT: Goddward, Paul J.
APPLICANT: Gurney, Austin L.
APPLICANT: Smith, Victoria
APPLICANT: Smith, Victoria
APPLICANT: Watenabe, Colin K.
APPLICANTON: BCRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
CURRENT APPLICATION NUMBER: US/10/199,670
CURRENT PILING DATE: 1997-09-18
PRIOR FILING DATE: 1997-09-18
PRIOR FILING DATE: 1997-09-18
PRIOR APPLICATION NUMBER: 60/059266
PRIOR FILING DATE: 1997-09-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANWTLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 AGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MSTITCQVVAFILSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 261;
; PRIOR APPLICATION NUMBER: 60/063120
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/063121
; PRIOR FILING DATE: 1997-10-24
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/063540
; PRIOR FILING DATE: 1997-10-28
; TYPE: PRIOR FILING DATE: 1997-10-28
; SEQ ID NO 356
; TYPE: PRT
; ORGANISM: HOMO Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.0%; Score 1357; DB 12; Best Local Similarity 100.0%; Pred. No. 2.7e-132; Matches 261; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-199-670-356
; Sequence 356, Application US/10199670
; Publication No. US20040033560A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
APPLICANT: Chen, Jian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 YDGGARTEDEVQSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YDGGARTEDEVQSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-206-915-356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

```
121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WESULT 4

US-10-201-858-356

105-100-201-858

105-100-201-858

105-100-201-858

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201-801

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-201

105-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SGIMFIUSGLCAIAGVSVFANMLVINFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYBGLWRSCVRQSSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7; DB 12; Length 261;
2.7e-132; Indels 0;
                                                                                                                                                                                                                                                        E: 1997-10-21

NN NUMBER: 60/063540

NN NUMBER: 60/063541

NN NUMBER: 60/063541

E: 1997-10-28

NN NUMBER: 60/063544

NN NUMBER: 60/063544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 100.0%; Score 1357;
Best Local Similarity 100.0%; Pred. No. 2.7
Matches 261; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EDEVOSYPSKHDYV 261
                             3: 1997-10-17
N NUMBER: 60/063120
3: 1997-10-24
N NUMBER: 60/063121
5: 1997-10-24
N NUMBER: 60/063486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EDEVQSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sapien
PRIOR FILING DATE: 19:
PRIOR APPLICATION NUM
PRIOR PILING DATE: 19
PRIOR PILING DATE: 15:
PRIOR PILING DATE: 1:
PRIOR FILING DATE: 1:
PRIOR FILING DATE: 1:
PRIOR FILING DATE: 1:
PRIOR PILING DATE: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YDGGARTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGLTLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
```

```
US-10-205-890-356

US-10-205-890-356

Sequence 356, Application US/10205890

Publication No. US20040048334A1

GENERAL INFORMATION:

APPLICANT: Baker, Kevin P.

APPLICANT: Chen, Jane

APPLICANT: Goddard, Audrey

APPLICANT: Godwaki, Paul J.

APPLICANT: Godwaki, Paul J.

APPLICANT: Godwaki, Paul J.

APPLICANT: Matanabe, Colin K.

APPLICANT: Watanabe, Colin K.

APPLICANT: Watanabe, Colin K.

APPLICANT: Watanabe, Colin K.

APPLICANT: Applicant Wood, William I.

APPLICANT: Applicant Secreted AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC

TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE

TITLE OF INVENTION: ACIDS ENCODING THE SAME

TITLE OF INVENTION: ACIDS ENCODING THE SAME

TITLE OF INVENTION: ACIDS ENCODING THE SAME

TITLE OF INVENTION NUMBER: 10/02286

PRIOR PILING DATE: 2002-01-15

PRIOR FILING DATE: 1997-09-18

PRIOR FILING DATE: 1997-09-18

PRIOR FILING DATE: 1997-09-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181 AGGLTLIGGVMMCIACRGLAPBETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 AGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 261;
PRIOR FILING DATE: 1997-10-17
PRIOR FILING DATE: 1997-10-24
PRIOR APPLICATION NUMBER: 60/063120
PRIOR PILING DATE: 1997-10-24
PRIOR FILING DATE: 1997-10-24
PRIOR FILING DATE: 1997-10-24
PRIOR FILING DATE: 1997-10-21
PRIOR FILING DATE: 1997-10-28
PRIOR APPLICATION NUMBER: 60/063541
PRIOR FILING DATE: 1997-10-28
PRIOR FILING DATE: 1997-10-28
PRIOR PPLICATION NUMBER: 60/063541
PRIOR FILING DATE: 1997-10-28
PRIOR PPLICATION NUMBER: 60/063543
PRIOR PPLICATION NUMBER: 60/063544
PRIOR PPLICATION NUMBER: 60/063544
PRIOR PPLICATION NUMBER: 60/063544
PRIOR SEQ ID NOS: 612
SEQ ID NO 356
LENGTH: 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Score 1357; DB 12;
; Pred. No. 2.7e-132;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 YDGGARTEDEVQSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 YDGGARTEDEVQSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.
Matches 261; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Homo Sapien
US-10-201-858-356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-205-890-356
```

120 120 180

```
PRIOR APPLICATION NUMBER: 60/059266

PRIOR FILING DATE: 1997-09-18

PRIOR APPLICATION NUMBER: 60/062250

PRIOR FILING DATE: 1997-10-17

PRIOR APPLICATION NUMBER: 60/063120

PRIOR FILING DATE: 1997-10-24

PRIOR FILING DATE: 1997-10-24

PRIOR FILING DATE: 1997-10-24

PRIOR FILING DATE: 1997-10-24

PRIOR FILING DATE: 1997-10-28

PRIOR FILING DATE: 1997-10-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Baker, Aevin P.

APPLICANT: Chen, Jian
APPLICANT: Goddard, Audrey
APPLICANT: Goddard, Audrey
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J.
APPLICANT: Godowski, Paul J.
APPLICANT: Godowski, Paul J.
APPLICANT: Watanabe, Colin E.
APPLICANT: Watanabe, Colin K.
APPLICANT: APPLICANT: ACIDS ENCODING THE SAME
TITLE OF INVENTION: ACIDS ENCODING THE SAME
TITLE OF INVENTION: ACIDS ENCODING THE SAME
CURRENT APPLICATION NUMBER: US/10/208,024
CURRENT APPLICATION NUMBER: 10/052586
PRIOR FILING DATE: 2002-01-15
PRIOR FILING DATE: 1997-09-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 100.0%; Score 1357; DB 12; Length 261; Best Local Similarity 100.0%; Pred. No. 2.7e-132; Matches 261; Conservative 0; Mismatches 0; Indels 0;
PRIOR FILING DATE: 1997-09-18

PRIOR APPLICATION NUMBER: 60/062250

PRIOR FILING DATE: 1997-10-17

PRIOR FILING DATE: 1997-10-24

PRIOR PLLING DATE: 1997-10-24

PRIOR PELING DATE: 1997-10-24

PRIOR PELING DATE: 1997-10-24

PRIOR PELING DATE: 1997-10-21

PRIOR PELING DATE: 1997-10-28

PRIOR SEQ ID NOS: 612

SEQ ID NO 356

LENGTH: 261

TYPE: PRT

CRGANISM: Homo Sapien

US-10-205-890-356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 6
US-10-208-024-356
; Sequence 356, Application US/10208024
; Publication No. US20040048335A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Chen, Jian
; APPLICANT: Goddard, Audrey
; APPLICANT: Goddwski, Paul J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EVOSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EVOSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGLTLIGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YDGGARTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 YDGGARTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MSTTTCQVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TECRPYFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TECRPYFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
```

ô

```
Sequence 356, Application US/10201853
; Publication No. US20040053358A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Chen, Jian
; APPLICANT: Goddard, Audrey
; APPLICANT: Goddard, Audrey
; APPLICANT: Godwski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Matanabe, Colin K.
; APPLICANT: Smith, Victoria
; APPLICANT: Smith, Victoria
; APPLICANT: Matanabe, Colin K.
; APPLICANT: Abang, Zemin I.
; APPLICANT: Abang, Zemin I.
; APPLICANT: Abang, Zemin I.
; TITLE OF INVENTION: ACIDS ENCODING THE SAME
; TITLE OF INVENTION: ACIDS ENCODING THE SAME
; TITLE OF INVENTION NUMBER: 10/052586
; CURRENT FILING DATE: 2002-07-23
; CURRENT FILING DATE: 2002-01-15
; PRIOR APPLICATION NUMBER: 60/059263
                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                         TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                 1 MSTITCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
                                                                                                                                                                                                                                                                                                                     61 TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                SGIMFIVSGLCALAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                              .
0
                                                                                                                 Length 261;
                                                                                                                                                              Indels
                                                                                                          Query Match 100.0%; Score 1357; DB 12; Best Local Similarity 100.0%; Pred. No. 2.7e-132; Matches 261; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 YDGGARTEDEVQSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 YDGGARTEDEVQSYPSKHDYV 261
; LENGTH: 261
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-208-024-356
```

```
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ਨੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-063-745-118

Sequence 118, Application US/10063745

Publication No. US20040058411A1

GENERAL INFORMATION:

APPLICANT: Eaton, Dan L.

APPLICANT: Gerritsen, Mary E.

APPLICANT: Gedward, Audrey

APPLICANT: Godward, Paul J.

APPLICANT: Godward, Paul J.

APPLICANT: Godward, Paul J.

APPLICANT: Grimaldi, Christopher J.

APPLICANT: Granabe, Colin K.

APPLICANT: Wood, Milliam I.

TITLE OF INVENTION: AECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC

TITLE OF INVENTION: ACCIDE ENCODING THE SAME

FILE REFERENCE: P3230RLC1

CURRENT APPLICATION NUMBER: US/10/063,745

CURRENT FILING DATE: 2002-05-09

PRIOR FILING DATE: 2002-05-09

NUMBER OF SEQ ID NOS: 170

SEQ ID NO 118

LENGTH: 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VVAFILSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 261;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IndelB
                                                                                                                                                                                                                                                                                                                                    1997-10-28
NUMBER: 60/063544
1997-10-28
data removed - See File Wrapper or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 1357; DB 12;
100.0%; Pred. No. 2.7e-132;
Live 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EDEVOSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : 1997-09-18
NUMBER: 60/059266
: 1997-09-18
NUMBER: 60/062250
: 1997-10-17
                                                                                                                  NUMBER: 60/063120

1: 1997-10-24

1: 1997-10-24

1: 1997-10-24

1: 1997-10-21

1: 1997-10-21

2: 1997-10-21

1: 1997-10-21

1: 1997-10-21

1: 1997-10-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.
Matches 261; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                   NOS: 612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sapien
PRIOR FILING DATE: 19:
PRIOR APPLICATION NUM
PRIOR FILING DATE: 19
PRIOR PILING DATE: 19
PRIOR PILING DATE: 19
PRIOR FILING DATE: 1;
PRIOR PILING DATE: 1;
PRIOR PILING DATE: 1;
PRIOR PILING DATE: 1;
PRIOR FILING DATE: 1;
PRIOR FILING DATE: 1;
PRIOR FILING DATE: 1;
PRIOR PPLICATION NUMBER OF SEQ ID NO;
SEQ ID NO 356
LINGTH: 261
LINGTH: 261
LINGTH: 261
LINGTH: 261
LINGTH: 261
LINGTH: PRI
CREATION ON 356
LINGTH: 261
LINGTH: PRI
CREATION ON 356
LINGTH: 261
LINGTH: PRI
CREATION ON 356
LINGTH: PRI
CREATION ON 356
LINGTH: 261
LINGTH: PRI
CREATION ON 356
LINGTH: PRI
CREATION ON 356
LINGTH: 261
LIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SGIMFIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 AGGLTLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YDGGARI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000年
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
```

```
180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                             ö
                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 76, Application US/09940227

Sequence 76, Application US/09940227

Publication No. US20030017468A1

GENERAL INFORMATION:

APPLICANT: Chen, Sei Yu

APPLICANT: Macina, Roberto

APPLICANT: Recipon, Herve

TITLE OF INVENTION: Compositions and Methods Relating to Lung Specific

TITLE OF INVENTION: Genes

FILE REFERENCE: DEX-0230

CURRENT APPLICATION NUMBER: US/09/940,227

CURRENT FILING DATE: 2001-08-27

PRIOR APPLICATION NUMBER: 60/228,378

PRIOR FILING DATE: 2000-08-28

NUMBER OF SEQ ID NOS: 84

SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181 AGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                   121 SGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                  181 AGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                               TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                    61 TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                              AGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                 1 MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ó
                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 261;
                                                                       261;
                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                             Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%; Score 1357; DB 12; Best Local Similarity 100.0%; Pred. No. 2.7e-132; Matches 261; Conservative 0; Mismatches 0;
                                                                     Query Match 100.0%; Score 1357; DB 12; Best Local Similarity 100.0%; Pred. No. 2.7e-132; Matches 261; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 YDGGARTEDEVQSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 76
LENGTH: 261
TYPE: PRT
CORGANISM: Homo sapiens
US-09-940-227-76
   ; TYPE: FA.; ORGANISM: Homo Sapien
US-10-063-745-118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                         121
TYPE: PRT
```

~

```
al Similarity 100
261; Conservative
                                                                                                                                                                                                    Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-063-515-118
                                                                                                                                                                  ; TYPE: PRT
; ORGANISM: Homo
US-10-063-513-118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 12
US-10-063-515-118
                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 261
                                                                                                                                                                                                                                                                                                                                                                                                                  Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QQ
                                                                                                                                                                                                                                                                                                                                                                                                              日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                        RESULT 10
US-10-063-512-118

Sequence 118, Application US/10063512
Publication No. US20030018183A1
GENERAL INFORMATION:
APPLICANT: Eaton, Dan L.
APPLICANT: Eaton, Mary E.
APPLICANT: Goddard, Audrey
APPLICANT: Goddard, Audrey
APPLICANT: Goddard, Audrey
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Watanabe, Colin K.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SGIMFIUSGLCAIAGVSVFANMLVINFWMSTANMYTGMGGMVQTVQTKYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Christopher J.

Christopher J.

Colin K.

Liam I.

SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC

ACIDS ENCODING THE SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 1357; DB 12; Length 261; 100.0%; Pred. No. 2.7e-132; vative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
US-10-063-513-118
; Sequence 118, Application US/10063513
; Publication No. US20030018172A1
; GENERAL INFORMATION:
; APPLICANT: Eaton, Dan L.
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Watanabe, Colin K.
; APPLICANT: Wood, William I.
; APPLICANT: Wood, William I.
; APPLICANT: Wood, William I.
   261
                                                261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EVOSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FVQSYPSKHDYV 261
                        YDGGARTEDEVQSYPSKHDYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-063-512-118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 261; Conser
241 YDGGARTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TECRPYFTII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGLTLIGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YDGGARTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TECRPYFT
                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                         셤
 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ठ
```

```
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Eaton, Dan L.

APPLICANT: Eaton, Dan L.

APPLICANT: Eaton, Mary E.

APPLICANT: Gerriteen, Mary E.

APPLICANT: Godowski, Paul J.

APPLICANT: Watanabe, Colin K.

APPLICANT: Watanabe, Colin 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 TECRPYFILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SGIMFIVSGLCAIAGVSVFANMLVINFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 AGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MSTITCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 AGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 261;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1357; DB 12; Length 261;
Pred. No. 2.7e-132;
Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                     or Palm
                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 1357; DB 12; 100.0%; Pred. No. 2.7e-132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
FILE REFERENCE: P3230R1C1
CURRENT APPLICATION NUMBER: US/10/063,513
CURRENT FILING DATE: 2002-05-01
Prior Application removed - See File Wrapper NUMBER OF SEQ ID NOS: 170
SEQ ID NO 118
LENGTH: 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 118, Application US/10063515
Publication No. US20030018173A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 YDGGARTEDEVQSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 YDGGARTEDEVQSYPSKHDYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.0%; P. Matches 261; Conservative 0;
```

```
TYPE: PRT
CORGANISM: Homo Sapien
US-10-063-569-118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Eaton, Dan L.
APPLICANT: Eaton, Mary B.
APPLICANT: Gerritsen, Mary B.
APPLICANT: Goddard, Audrey
APPLICANT: Godwski, Paul J.
APPLICANT: Godwski, Paul J.
APPLICANT: Godwski, Paul J.
APPLICANT: Gurney, Austin L.
APPLICANT: Watanabe, Colin K.
APPLICANT: Wound Watanabe, Colin K.
APPLICANT: Watanabe, Colin K.
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                      240
                                               :80
                                                                                            -80
TILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         )VVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
                                                                                                                                                               AGGLTLIGGWMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                 SGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7; DB 12; Length 261;
2.7e-132;
les 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 1357; llarity 100.0%; Pred. No. 2.7 Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ication US/10063569
20030018168A1
                                                                                                                                                                                                                                                                                                                                  RESULT 13
US-10-063-549-118
: Sequence 118, Application US/10063549
: Sequence 118, Application US/10063549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             redevosypskadýv 261
                                                                                                                                                                                                                               YDGGARTEDEVQSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 apien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 14
US-10-063-569-118
; Sequence 118, Application; Publication No. US200:
; GENERAL INFORMATION:
; APPLICANT: Eaton, Dan
                                                                                                                                                                                                                                                                                                                                                                                    ; Sequence 118, Applica; Publication No. US200; GENERAL INFORMATION: APPLICANT: Eaton, Dan; APPLICANT: Gerritse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Prior Application r

NUMBER OF SEQ ID NO

SEQ ID NO 118

LENGTH: 261

TYPE: PRT

ORGANISM: Homo Sap

US-10-063-549-118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similari
Matches 261; Cons
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MSTTTCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MSTTTCO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SGIMFIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGLTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YDGGAR
       TECRPYF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGLTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YDGGAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                            181
                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                             241
                                                   121
                                                                                                                                                                                      181
                                                                                             121
       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                   õ
```

```
180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SGIMFIVSGLCALAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 SGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 AGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGF
APPLICANT: Goldweki, Paul J.
APPLICANT: Goldweki, Paul J.
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Granabe, Colin L.
APPLICANT: Watanabe, Colin K.
APPLICANT: Watanabe, Colin K.
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCL
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3230R1C1
CURRENT APPLICATION NUMBER: US/10/063,569
CURRENT FILING DATE: 2002-05-02
Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 170
SEQ ID NO 118
: LENGTH: 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                ·;
                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 1357; DB 12; 100.0%; Pred. No. 2.7e-132; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
US-10-063-551-118

Sequence 118, Application US/10063551

Publication No. US20020183494A1

GENERAL INFORMATION:

APPLICANT: Eaton, Dan L.

APPLICANT: Gerritsen, Mary E.

APPLICANT: Goddard, Audrey

APPLICANT: Godowski, Paul J.

APPLICANT: Grimaldi, Christopher J.

APPLICANT: Grimaldi, Christopher J.

APPLICANT: Wood, William I.

TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE

TITLE OF INVENTION: ACIDS ENCODING THE SAME

FILE REFERENCE: P3230R1C1

CURRENT APPLICATION NUMBER: US/10/063,551

CURRENT FILING DATE: 2002-05-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Prior Application removed - See File Wrapper NUMBER OF SEQ ID NOS: 170
SEQ ID NO 118
LENGTH: 261
                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 YDGGARTEDEVQSYPSKHDYV 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.
Matches 261; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-063-551-118
```

us-10-063-731-118.xapb

```
Indels 0; Gaps
Query Match 100.0%; Score 1357; DB 12; Length 261; Best Local Similarity 100.0%; Pred. No. 2.7e-132; Matches 261; Conservative 0; Mismatches 0; Indels 0;
                                                                                                    P &
                           Ωþ
                                      ð
                                               g
                                                                             ਨੇ
                                                                                        đ
                                                                                                    ਨੋ
```

Search completed: September 1, 2004, 16:49:39 Job time : 50 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

- nucleic search, using sw model OM nucleic

2, 2004, 13:08:28; Search time 5592 Seconds (without alignments) 16439.659 Million cell updates/sec September Run on:

US-10-063-731-117 2121 1 gagctccctcaggagcgcg......ggttaaaactaattctttaa 2121 Title: Perfect score: Sequence:

Scoring table:

3470272 seqs, 21671516995 residues IDENTITY NUC Gapop 10.0 , Gapext 1.0 Searched:

6940544 Total number of hits satisfying chosen parameters:

0 2000000000 Minimum DB seq length: Maximum DB seq length: Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

htgo_hum:* htgo_mus:* htgo_other:*

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Rei	Result No.	Score	% Query Match	Length	DB	SUMMARIES	Description
i		1 - 1 (, +			
	H	2121	00.	2121	9	AX092386	Segmen
	7	2121		2121		AX37628	76288 S
	m	2121	00	2121		AX6972	5.7
	4	212	100.0	2121		AY35847	3479
	Ŋ,	4.		3344		AK0984	474 Homo sap
	9	ശ		1869		AX47295	954 Sequence
	7	166				BC06384	3845 Homo
ပ	ω (303.		9		AC01625	5252
υ	ο,	303.		182726		AC08443	Homo
	0 ;	83		4			810
	Ţ;	ህ ፡ ፋ ፣		982		BD237992	Gastr
ט	7 6	4. C.	ກ ເ ກ ເ	1171	on t	HSM800576	AL080075 Homo sapi
	7 -			2786	70	AF22106	3 Mus
	# L	Į,		816	o,	AF221069	AF221069 Homo sapi
	15	m o		1409	10	AF349450	Mus
	9 7			196	σ	AF349452	ОШО
	17	თ (783	9	BD237993	astr
	RT :	œ ·		849	10	AF349451	Mus mus
	19	526.6	24.8		10	AF349453	Mus
U	50	7		261333	7	AC138280	Mus m
	21	Ψ.		2388	2	BC060425	בווטכ
	22	220.4		423	9	AX380609	Sequence
	23	\circ	10.4	423	9	AX380725	L/
υ	24	ന	9.1	à	σ	AL390960	Human D
	25	m	9.1	201817	7	AL358992	Homo
	56	Η,	9.0	Ñ	თ	AC011510	AC011510 Homo sapi
Ö	27	190.2	0.0	166229	0	AC022070	Ношо
	28	H	9.0	4297	σ	HSM802170	-
	59	89	œ 6.	õ	N	AC027102	102 Homo
υ	30	89	8.9	168958	σ	AC027451	51 Homo
บ	31	8	6	183842	σ	AC130450	450 Homo
υ	32	189.8	σ	188636	0	HUAC002287	287
U		89	σ	200863		AC01860	3608 Homo
	3.4	83	σ	150262	σ	AC034186	9
		99	a	167579	თ	AC026161	Homo
U	36	89.	σ	125823	σ	HSJ561L24	Humar
U	37	~	თ	128379	σ	HSJ773A18	7 Human
U	38	~	σ	6		AC141071	1071 Homo s
	39	~	0	8		AC14254	540 Homo 8
บ	40	~	6	8		AC14332	324 HOMO
ບ	41	~	σ	8		AC12660	FOR HOMO
ບ	42	~~	σ	8		AC14253	2552 MOMO 5
	43	~	σ	96		AC14144	12331 HOMO
	44	189	8.9	200389	9	AC13467	34678 HOMO S
	45		6	8		AC14531	34070 HOURO S
			,)		7777	453T

ALIGNMENTS

o DNA linear PAT 21-MAR-2001 5318.	Homo sapiens Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 Eaton, D.L., Filvaroff, E., Gerritsen, M.E., Goddard, A., Godowski, P.J., Grimaldi, C.J., Gurney, A.L., Watanabe, C.K. and Wood, W.I.
AX092386 Sequence 117 from Patent WO0116318. AX092386 AX092386.1 GI:13444507	
RESULT 1 AX092386 LOCUS DEFINITION ACCESSION VERSION KEYWORDS	SOURCE ORGANISM ORGANISM REFERENCE AUTHORS

421 ACTCTGCCAAAGCCAACATGACCTCCGGGATCATGTTCATTGTCTCAGGTCTTT 480 481 GTGCAATTGCTGGAGTGTTTGCCAACATGCTGGTGACTTCTTGGATGTCCA 540 [61 Tantoticantecroecocococococococococococococococococ	
	6 B 6 B 6 B 6 B 6 B 6 B 6 B 6 B 6 B 6 B	
Qy 1981 AGGGAGGTTGGGGCTGCAGTGACCATGATCACCACCACCAGCCAG	MATTER M	

Fri

```
TTGGGTCCAACACCAAAAACAAGATATACGATGGAGGTGCCCGCACAGAGGACGAGG
                                                                                                                                                                                                                                                                                                                  CCATTGGCCTCCTGGTATCCATCTTTGCCCTGAAATGCATCCGCATTGGCAGGAGGGCTTCGCATGGAGGCCCATTGGCAGGAGGAGGCCATTGGCCTGGAAATGCATCCGCATTGGCAGGAGGGCATTGGCCATTGGCATTGGCAGGAGG
                                                                      781
                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                     601
                                                                                                                                                         361
                                                                                                                                                                                                                   541
                                                                                                                                                                                            481
                                                                                                                                                                                                       481
                                                   121
                                                              121
                                                                         181
                                                                                     181
                                                                                                241
                                                                                                           241
                                                                                                                      301
                                                                                                                                  301
                                                                                                                                              361
                                       61
                Н
                                                                                                                                                                                                                                                                                                                                             ΩD
                                                                                                                                                                                                                                                                                                                                                                    рp
                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                            8 B &
                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                              8 8
                                                                                                                                                                                                                                                                                                                                  ठ
                                                                                                                                                                                                                                                                                                                                                        ∂
                                                                                                                                                                    8 B 8
                                                                                                                                                                                                    qq
                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                      B 6
                                                                                                                                40
40
                                                                                                                                                                                                                  ð
                                                                                  g
                                                                                               $ B $
                                                ò
                                                                       ⋧
                                                                                                                                                                                                                                                                                                                       E 1
S Ferrara, N., Stewart, T.A., Williams, P.M., Baker, K.P., Desnoyers, L., Eaton, D.L., Gao, W.Q., Pan, J., Botstein, D., Fong, S., Goddard, A., Godowski, P.J., Gurney, A.L., Smith, V., Tumas, D., Wood, W.I., Grimaldi, C.J., Hillan, K.J., Paoni, N.F., Roy, M.A. and Watanabe, C.K. Secreted and transmembrane polypeptides and nucleic acids encoding the same transmembrane polypeptides and nucleic acids encoding the same Location/Qualifiers

I. 2121
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                1800
                                                                                                                                                                                                                                                                  02-APR-2003
                                                                                                                  1.860
                                                                                                                                                                                                                                                                                               Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                           AGCACTTTGGGAGGCTGAGGAGGAGGATCACTTGAGCCCAGAAGTTCGAGACTAGCCTG
                                                                                                                             Gaps
                                  CAGCAACACCATTCTAGGAGTTTCCTGAGCTCTCCACTGGAGTCCTTTTCT
           .;
0
                                                                                                                                                                                                                                                                  PAT
                                                                                                                                                                                                                                                                                                                                                                                                                 2121;
                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                                                                                                                                   DNA
                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.0%; Score 2121; Best Local Similarity 100.0%; Pred. No. 0; Matches 2121; Conservative 0; Mismatches
                                                                                                                                                                                                                           2121
                                                                                                                                                                                                                           1 GI:29498417
                                                                                                                                                                                                                                                                         from
                                                                                                                                                                                                                                                                   AX697257
Sequence
AX697257
AX697257.
                                            TAAATATA
                                                                                                                                                                                                                           2101 AGGTTAA
                                     TAAATAT
                                                                                  GGTACTT
                                                                                         |||||||
GGTACTT
   1501 TCTTATT
                                                                                                                                                                  1921
                                                                                                                                                                              1981
                                                                                                                                                                                         1981
                                                                                                                                                                                                                                       2101
                                                                                                                    1801
                                                                                                                                                       1921
                                                                                  1741
                                                                                              1741
                                                                                                         1801
                         1561
                                     1621
                                                 1621
                                                            1681
                                                                       1681
              1561
                                                                                                                                                                                                                                                                                                                                                                         FEATURES
source
                                                                                                                                                                                                                                                       RESULT 3
AX697257
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                       g
                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                        8
                                                                                                                                                                  g
                                                                                                                                                                              ð
                                                                                                                    Db
                                                                                                                                         Db
                                                                                                                                                       8
                                   유
성
                                                                     g
                                                                                  ₹
                                                                                           QQ
                                                                                                       δ
                                                                                                                                ò
                                                        \delta
```

540

600 600 660

480

420

360

180 180 240 240 300 300

120

60

840

720 720 780 780

```
/codon_start=1
                                                                                                                                                                        (bases 1 to 2121)
                                          CDNA.
                                                                                                                                                                              Clark, H.F
                                                                                                                                                                  12975309
                                                                                                                                                                                                                                                                                                                                                                                        Н
                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
   RESULT 4
AY358479
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                               source
                                                                                                                                                                PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                        REFERENCE
AUTHORS
                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                      <del>Q</del>
                                                                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ਨੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                     1260
                                                                  1260
                                                                                                       1380
                                                                               1320
                                                                                                                                 1440
                                                                                                                                             1440
                                                                                                                                                          1500
                                                                                                                                                                       1500
                                                                                                                                                                                    1560
                                                                                                                                                                                                1560
                                                                                                                                                                                                             1620
                                                                                                                                                                                                                         1620
                                                                                                                                                                                                                                      1680
                                                                                                                                                                                                                                                   1680
                                                                                                                                                                                                                                                                1740
                                                                                                                                                                                                                                                                            1740
                                                                                                                                                                                                                                                                                                                             1860
                                                                                                                                                                                                                                                                                        1800
                                                                                                                                                                                                                                                                                                     1800
                                                                                                                                                                                                                                                                                                                  1860
                                                                                                                                                                                                                                                                                                                                          1920
                                                                                                                                                                                                                                                                                                                                                       1920
                                                                                                                                                                                                                                                                                                                                                                    1980
                                                                                                                                                                                                                                                                                                                                                                                1980
                                                                                                                                                                                                                                                                                                                                                                                                          2040
                                                                                                                                                                                                                                                                                                                                                                                                                       2100
                                                                                                                                                                                                                                                                                                                                                                                                                                   2100
                                                  3CTATAGCTCACATTTTCAATCCTCTATTTCTTTTTTAAATAACTTTCT
        CCCAACTTGGCTAGTAATAACACTTACTGAAGAAGAAGCAATAAGAGAAA
                                                                             GAAAGGAAAGACCCAAAGATGTTATTTTCTGCTGTTTGAATTTTTGT
                                                                                                                              AATCTCTCCAGCCCATGATCTCGGTTTTCTTACACTGTGATCTTAAAAGTT
                                                                                                                                     GAAAGGAAAGATAGACCCAAAGATGTTATTTTCTGCTGTTTGAATTTTGT
                                                                                                            1621 TAAATATATAAAATAAATAAATGTTTTAGTAAAATGATACACTATCTCTGTGAAATAGC
                                                                                                                                                                                TCTTATTACAGCAACACCATTCTAGGAGTTTCCTGAGCTCTCCACTGGAGTCCTCTTTCT
                                                                                                                                                                                                                                    TAAATATATAAAATAAATAATGTTTTAGTAAAATGATACACTATCTCTGTGAAATAGC
                                                                                                                                                                                                                                                             ACATGTGGATAGAAATGAAAAATAATTGCTTTGACATTGTCTATAT
                                                                                                                                                                                                                                                                      TAAAGTCATGCTTAAGTACAAATTCCATGAAAAGCTCACACCTGTAATCCT
                                                                                                                                                                                                                                                                                                               GGAGGCTGAGGAAGGATCACTTGAGCCCAGAAGTTCGAGACTAGCCTG
                                                                                                                                                                                                                                                                                                                                               GGAGGCTGAGGAGGATCACTTGAGCCCAGAAGTTCGAGACTAGCCTG
                                                                                                                                                                                                                                                                                                                                        GAGAAGCCCTGTCTACAAATACAGAGAAAAAATCAGCCAGTCATGG
                                                                                                                                                                                                                                                                                                                                                                 COTGIAGICCCAGCAITCCGGGAGGCTGAGGIGGGAGGAICACIIGAGCCC
                                                                                                                                                                                                                                                                                                                                                                         GTCTAAAAAAATAAAAATAAATAATGGAACACAGCAAGTCCTAGGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                           3GGCTGCAGTGAGCCATGATCACACCACTGCACTCCAGGCCAGGTGACATA
                                                                                                                                                        AAGTCATTTCAGTTTGAGGCAACCAAACCTTTCTACTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                              TAATTCTTTAA 2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTAATTCTTAA
                                                                                                     1741 GGTACTTTGT
||||||||
1741 GGTACTTTGT
                                                  1201 CCCCCTCTI
||||||||
1201 CCCCCTCTT
                                    ACTCTGAT
                                                                                   ||||||||
1261 AAAACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGTTAAAA(
                                                                                                                                                                  1441 ACCAPACC
                                                                                                                                                                                                                                                                                                                                                  GGCAACATG
                                                                                                                                                                                                                                                                       1681 CTCACCCC
                                     1141
                         1141
                                                                                                                              1381
                                                                                                                                         1381
                                                                                                                                                                                1501
                                                                                                                                                                                             1501
                                                  1201
                                                                            1261
                                                                                                                                                       1441
                                                                                                                                                                                                                     1561
                                                                                                                                                                                                         1561
                                                                                                                                                                                                                                                                                                              1801
                                                                                                                                                                                                                                   1621
                                                                                                                                                                                                                                                            1681
                                                                                                                                                                                                                                                                                                                          1801
                                                                                                                                                                                                                                                                                                                                                   1861
                                                                                                                                                                                                                                                                                                                                                                1921
                                                                                                                                                                                                                                                                                                                                       1861
                                                                                                                                                                                                                                                                                                                                                                                          1981
                                                                                                                                                                                                                                                                                                                                                                                                       1981
                                                                                                                                                                                                                                                                                                                                                                             1921
```

```
Homo sapiens (human)

Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

Is (bases 1 to 2121)

Clark, H.F., Gurney, A.L., Abaya, E., Baker, K., Baldwin, D., Brush, J.,

Chen, J., Chow, B., Chui, C., Crowley, C., Currell, B., Deuel, B.,

Dowd, P., Eaton, D., Foster, J., Grimaldi, C., Gu, Q., Hass, P.E.,

Heldens, S., Huang, A., Kim, H.S., Klimowski, L., Jin, Y., Johnson, S.,

Lee, J., Lewis, L., Liao, D., Mark, M., Robbie, E., Sanchez, C.,

Schoenfeld, J., Seshagiri, S., Simmons, L., Singh, J., Smith, V.,

Stinson, J., Vagts, A., Vandlen, R., Watanabe, C., Wieand, D., Woods, K.,

Kie, M.H., Yansura, D., Yi, S., Yu, G., Yuan, J., Zhang, M., Zhang, Z.,

Goddard, A., Wood, W.I. and Godowski, P.

The Secreted Protein Discovery Initiative (SPDI), a Large-Scale

Effort to Identify Novel Human Secreted and Transmembrane Proteins:

A Bioinformatics Assessment

Genome Res. 13 (10), 2265-2270 (2003)
            PRI 03-OCT-2003 complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /translation="MSTTTCOLVAFILSILGIAGCIAATGMDMWSTQDLYDNPVTSVF
QYEGLWRSCVRQSSGFTECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALK
CIRIGSMEDSAKANMTLTSGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGG
MVQTVQTRYTFGAALFVGWVAGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSV
AYKPGGFKASTGFGSNTKNKKIYDGGARTEDEVQSYPSKHDYV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genentech,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCACCCAGGACCTGTACGACAACCCCGTCACCTCCGTGTTCCAGTACGAAGGGCTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCTCCCCTCAGGAGCGCGTTAGCTTCACACCTTCGGCAGCAGGAGGCGGCAGCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCAGGCGGCGGCGGCCAGGATCATGTCCACCACCACCATGCCAAGTGGTGGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 9; Length 2121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
Submitted (01-AUG-2003) Department of Bioinformatics,
Inc., 1 DNA Way, South San Francisco, CA 94080, USA
Location/Qualifiers
          mRNA linear
(UNQ778) mRNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
2121 bp
Homo sapiens clone DNA73734 CLDN18
AY358479
AY358479.1 GI:37182080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.0%; Score 2121; Best Local Similarity 100.0%; Pred. No. 0; Matches 2121; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .2121
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="DNA73734"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /product="CLDN18"
/protein_id="AAQ88843.1"
/db_xref="G1:37182081"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .2121
/locus tag="UNQ778"
90. .875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /locus_tag="UNQ778"
/note="PR01572"
```

· rge

us-10-063-731-117

~

Page

710 806 770 998 926

986 950

```
GTCGCTGGAGGCCTCACACTAATTGGGGGTGTGATGATGTGCATCGCCTGCCGGGGCCCTG
                                                   CTTCCAAGCACGAC
                                                                                                                                                  AAAAAACAAGGAGATCCCATCTAGATTTCTTGCTTTTGACTCACAGCTGGAAGTTAG
                                                                                                                                                                                                                                                                                                  AATCCTCTATTTCTTTTTTAAATATATACTTTTCTACTCTGAGAGAATGTGGTTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                 CCATTGATGATCTATTTCCCAGCTTATCCCCAAGAAAACTTTTGAAAGGAAAGGTAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAAACACTTACTGAAGAAGCAATAAGAGAAAGATATTTGTAATCTCTCCAGCCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGCAACCAAACCTTTCTACTGCTGTTGACATCTTCTTATTACAGCAACACCATTCTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTITICCTGAGCTCTCCACTGGAGTCCTCTTTCTGTCGCGGGTCAGAAATTGTCCCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTAATTTAAGTCCTAAATATAGTTAAAAATAAATGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTAGTAAAATGATACACTATCTCTGTGAAATAGCCTCACCCCTACATGTGGATAGAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTAAAGTCATGCTTAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAAGCCTCGATTTCATCTTTGGAGAGGCCAAATGGTCTTAGCCTCAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTACACTGTGATCTTAAAAGTTACCAAACCAAAGTCATT
                                                                                                                                     ATATACGATGGAGGTGCCCGCACAGAGGACGAGGTACAATCTTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAAAGATGTTATTT
             591
                                                            651
                                                                                                             711
                                                                                                                                                             771
                                                                                                                                                                                     867
                                                                                                                                                                                                                                    927
                                                                                    747
                                                                                                                                    807
                                                                                                                                                                                                             831
                                                                                                                                                                                                                                                             891
                                                                                                                                                                                                                                                                                     987
                                                                                                                                                                                                                                                                                                            951
                                                                                                                                                                                                                                                                                                                                     1047
                                                                                                                                                                                                                                                                                                                                                                                    1107
                                                                                                                                                                                                                                                                                                                                                                                                           1071
                                                                                                                                                                                                                                                                                                                                                                                                                                     1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1671
                            P G
                                                                                  ਨੋ
                                                                                                        셤
                                                                                                                                  ò
                                                                                                                                                      qq
                                                                                                                                                                                                     g
                                                                                                                                                                                  ò
                                                                                                                                                                                                                             ठ
                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                  9
P
                                                                                                                                                                                                                                                                                                                                                                            ਨੋ
                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ठ व
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            상 점
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    දු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Db
Kawamura, M., Sugiyama, T., Irie, R., Otsuki, T., Sato, H.,
Nishikawa, T., Sugiyama, A., Kawakami, B., Nagai, K., Isogai, T. and
Sugano, S.

L. Dagano, S.

L. Dagaro, S.

L. Dabasa I to 3344)

Sugano, S. and Suzuki, Y.

Direct Submission

Submitted (08-UUL-2002) Sumio Sugano, Institute of Medical Science,
University of Tokyo, Laboratory of Genome Structure, Human Genome
Center; Shirokame-dai, 4-6-1, Minato-ku, Tokyo 108-8639, Japan

Submitted (08-UUL-2002) Sumio Sugano, Institute of Medical Science,
University of Tokyo, Laboratory of Genome Structure, Human

(E-mail: Eldona@ims.u-tokyo.ac.jp, Tel:01-3-549-5286,
Fax:01-3-5449-5416)

NEDO human cDNA sequencing project supported by Ministry of
Economy, Trade and Industry of Japan; cDNA full insert sequencing:
Research Association for Biotechnology (RAB); cDNA library
Construction and 5'-end one pass sequencing: Institute of Medical
Science, University of Tokyo, Laboratory of Genome Structure, Human
Genome Center; 3'-end one pass sequencing: RAB; clone selection for
Location/Qualifiers

l. 3344

| J. 3344
| J. 3449-Ellon |
| J. 33440-Ellon |
| J. 3449-Ellon |
| J. 
                                                                                                                                                                                                                                                                                                                                                                                                                      ij
                                                                                                                                                                                                                                                                                                                                                                                                                                              146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                686
                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCATGCCACCACCACATGCCAAGTGGCGTTCCTCCTGTCCATCCTGGGGCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCACCTCCGTGTTCCAGTACGAAGGGCTCTGGAGGAGCTGCGTGAGGCAGAGTTCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCCAAAGCCAACATGACACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCCTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAACATGACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGACTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTCGTGGGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCAACATGCTGGTGACTTCTGGATGTCCACAGCTAACATGTACACGGCATGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCATGTTCATTGTCTCAGGTCTTTGTGCAATTGCTGGAGTGTCTGTGT
                                                                                                                                                                                                                                                                                                                                                                                               3344;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3CGGCCACCGGGATGGACATGTGGAGCACCCAGGACCTGT
                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                  67;
                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCATCCGCATTGGCAGCATGGAGGACT
                                                                                                                                                                                                                                                                                                                                                                                          Score 1814.8;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 92.0%;
Matches 1968; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCGCTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCTGCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCACCGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCTGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCACCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGAGCCCTGZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGAGCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGATGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGATGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCATCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCTCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCTCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                         87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           627
                                       TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                දු දු
                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

1010 1106

1226

1346 1250

1406 1370 1466 1430 1526

1490

1706

aggaccrgracgaaccccgrcaccrccagracgaagggcrcrggaggagc 2 aggaccrgracgaaccccgrcaccrccgrgrrccagracgaagggcrcrggaggagc 2 acgaccrgracgacrcccgrcaccrccagracgaagggcrcraccrccagaaggagc 2 acgrgaaggcragacrrcaccarrcaggacrr 3 ccgrgaaggcragacgragargaaggcccrarrrcaccarccragaacrr 3 caggcargaggcaaggcccrgargargargaaggcccrarrrcaccarccragaggccarr 3		CAAAGCCAACATGACACTGACCTCCGGGATCATGTTCTCTGAGGTCTTTGTGTCTTGTGTCTTTGTGTCTTTGTGTGTTTTGTGTGTGTTCTTGGATGTTCTGGATGTTCAGGTTGTTTTGGAGGTTGTTTTGGAGGTTGTTTTGGAGGTTGTT	06 GCGGCTCTGTTCGTGGGCTCGCTGGAGGCCTCACACTAATTGGGGGTGTGATGATG 66 99 GCGGCTCTGTTCGTGGGCTGGGTCGCTGGAGGCCTCACACTAATTGGGGGTGTGATGATG 65 66 TGCATCGCTGGCTGGCTGGCAGGAGGCCTCACACTACAAGGCGTTTCTTATCAT 72 66 TGCATCGCCTGCCGGGGCCTGGCACCAGAAGAAGCCGTTTCTTATCAT 73	26 GCCTCAGGCCACAGTGTTGCCTACAAGCCTGGAGGCTTCAAGGCCACAGCACTGGCTTTGGG 7 19 GCCTCAGGCCACAGTGTTGCCTACAAGCCTGGAGGCTTCAAGGCCACAGCACTGGCTTTGGG 7 86 TCCAACACACAAAAAAAAAAACAAGGCTTCAAGGCCACAGAGGCTTCAA 8 10 TCCTATCCTTCCAAAAAAAAAAAAAAAAAAAAAAAAAA	146 GATGAGAATGTGGTTTTAATCTCTCTCACATTTTGATGATTTAGACAGAC
% 8 % 8 %	8 8 8 8	a & a & a	8 8 8 8	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	6 8 6 8 6
1767 ACAAATTCCATGAAAA	1784 CTCACACCTGTAATCCTAGCACTTTGGGAGGCTGAGGAGGATCACTTGAGCCCAGA 1843		91 TC 84 AG 51 AG	MESULY 6 AX472954 LOCUS LOCUS LOCUS Sequence 3 from Patent W00218576. AX472954 AX472954 AX472954 AX472954 AX472954 AX472954 AX472954 VERSION AX472954 AX47296 AX47296 AX47296 AX47296 AX47296 AX47296 AX47296 AX47296	Db 1 CCCTCAGGAGCGCGTTA-CTTCACACCTTCGGCAGGAGGCGCA-CTTCTCGCAG 58 Qy 66 GCGCAGGGCGGCGCCAGGATCATGTCCACCACTGCCAAGTGGTGGCGTTCCTC 125

Submitted (08-DEC-2003) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA NIH-MGC Project URL: http://mgc.nci.nih.gov Contact: MGC help desk Email: cgapbs-r@mail.nih.gov Tissue Procurement: Dr. James R. Lupski cDNA Library Preparation: Life Technologies, Inc. CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Genome Sequence Centre, BC Cancer Agency, Vancouver, BC, Canada info@bcgsc.bc.ca Steven Jones, Jennifer Asano, Ian Bosdet, Yaron Butterfield, Susanna Chan, Readman Chiu, Chris Fjell, Erin Garland, Ran Guin, Letticia Hsiao, Martin Krzywinski, Reta Kutsche, Oliver Lee, Soo Sen Lee, Victor Ling, Carrie Mathewson, Candice McLeavy, Steven Ness, Pawan Pandoh, Anna-Liisa Prabhu, Parvaneh Saeedi, Jacqueline Schein, Duane Smailus, Michael Smith, Lorraine Spence, Jeff Stott, Michael Thorne, Miranada Tsai, Natasja van den Bosch, Jill Vardy, George Yang, Scott Zuyderduyn, Marco Marra.	r,	Match	9 4 6 4 6 6
JOURNAL REMARK COMMENT	FEATURES sou	Query Match Best Local Matches 191. 0y Db 140 Db 61 Qy 200 Db 121 Qy 260 Db 181 Qy 320 Db 181 Db 241	8 8 8 8 8
	9 6 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	BC063845.1 GI:39795429 Homo sapiens (human) Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Mammalia; Eutheria; Primates; Catarrhini 1 (bases 1 to 2040) Strausberg,R.L., Feingold,E.A., Grouse,L. Klausner,R.D., Collins,F.S., Wagner,L., Altschul,S.F., Zeeberg,B., Buetow,K.H., Hopkins,R.F., Jordan,H., Moore,T., Max,S. Diatchenko,L., Marusina,K., Farmer,A.A., Stapleton,M., Soares,M.B., Bonaldo,M.F., Scheetz,T.E., Brownstein,M.J., Usdin,T.B. Carninci,P., Prange,C., Farha,S.S., Loque, Abramson,R.D., Mullahy,S.J., Bosak,S.A., McKernan,K.J., Malek,J.A., Gunaratne,P.H Worley,K.C., Hale,S., Garcia,A.M., Gay,L Villalon,D.K., Muzny,D.M., Sodergren,E.J Fahey,J., Helton,E., Ketteman,M., Madan, Sanchez,A., Whiting,M., Madan, Bouffard,G., Blakesley,R.W., Touchman, Dickenn M. P. Podrimer,	Duterfield, Y.S., Rounguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E., Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences JOURNAL Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002) REFERENCE 2 (bases 1 to 2040) AUTHORS Strausberg, R. TITLE Direct Submission

DD 1383 CCCTAGATGAA7 CY 1640 TAATGTTTTAG7	542 QY 1783 799 Db 1623 602 QY 1783 859 Db 1683 662 QY 1837 919 Db 1743 722 QY 1897 979 Db 1803	782 1039 842 1099 902 1159		1459 1519 1322 1579 1382
393	483 GGCCTGGCACCAGAACCAACTACAAAGCCGTTTCTTATCATGCCTCGGGCCACAG 740 TGTTGCCTACAAGCCTGGAGGCTTCAAGGCCGTTTCTTATCATGCCTCGGGCCACAG 740 TGTTGCCTACAAGCCTGGAGGCTTCAAGGCCACTGGCTTTGGGTCCAACACACAAAA 800 CAAGAAGATATACGATGGAGGTCCCGCACAGCACTGGCTTTGGGTCCAACACACAAAA 800 CAAGAAGATATACGATGGAGGTGCCCGCACAGAAGGACGACGAGGATACAATCTTATCCTTCCAA 800 CAAGAAGATATACGATGGAGGTGCCCGCACAGAAGGACGAGGACGAGGATACAATCTTATCCTTCCAA 860 GCACGACTATGTGTAATGCTCTAAGACCTCTCAGGACGAGGAGGAAGAACTCCCGGAGAG 860 GCACGACTATGTGTAATGCTCTAAGACCTCTCAGCAGGGAGGAAGAACTCCCGGAGAG 860 GCACGACTATGTGTAATGCTCTAAGACCTCTCAGCAGGGAGGAAGAAACTCCCGGAGAG 920 CTCACCCAAAAAAAAAAAAAAAAAAAAAAAAAAAACTCTAGCTTGGATTTTGACTCACAGACTGG	723 CTCACCCAAAAACAAGGAATCCCATCCAGATTCTTCTTGCTTTGACTCACAGGTGG 980 AAGTTAGAAAAGCTCGATTTCATCTTTGGAGGCCAAATGGTCTTAGCCTCAGTCTCT 783 AAGTTAGAAAAGCCTCGATTTCATCTTTGGAGGCCAAATGGTCTTAGCCTCAGTCTCT 1040 GTCTCTAAATATTCCACCATAAAACAGCTGAGTTATTTAT	1160 GTTTTAATCTCTCTCACATTTTGATGATTTAGACAGACTCCCCCTCTTCCTCTAGTC	
2 2 2 2 2 2	90 00 00 00 00 00 00 00 00 00 00 00 00 0	4 4 4 4 4	8 6 6 6 6 6 6	% A % B % B % . .

164953 bp DNA linear PRI 25-SEP-2002 s 3 BAC RPII-461M2 (Roswell Park Cancer Institute Human } complete sequence. 1862 1836 1956 2016 1922 TGTACATGATAGTGTAAGCCATGTAAAAAGTAAATAATGTCTGGGC 1682 ATGAGAAAATTATTTTTTAATTTTAAGTCCTAAATATAGTTAAAATAAA 1442 1502 |||| |||||||| AATTGCATGAAAAGCTCACTGATCCTAATTCTTTCCCTTTGAGGTCTCTA 1622 GATCACTTGAGCCCAGGGAGGTTGGGCTGCAGTGAGCCATGATCACACC TCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCT ABGICCTAGGAAGTAGGTTAAAACTAATTCTTTAA 2121 AATTCCATGAAA------GI:19774335

(human)

nens

a; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eutheria; Primates; Catarrhini; Hominidae; Homo.

b; Eutheria; Primates; Catarrhini; Hominidae; Homo.

c; Euteria; Primates; Catarrhini; Hominidae; Homo.

d; Adams,C., Adio-Oduola,B., Ali-osman,F.R., Allen,C.,

m., Adams,C., Adio-Oduola,B., Ali-osman,F.R., Banks,T.,

l.J., Benton,J., Bimage,K., Blankenburg,K., Bonnin,D.,

Bowie,S., Brieva,M., Brown,E., Brown,M., Bryant,N.P.,

Burch,P., Burkett,C., Burrell,K.L., Byrd,N.C.,

Cox,C., Cowdrazos,S.R., Chacko,J., Chavez,D.,

Chen,R., Chen,Z., Chowdhry,I., Christopoulos,C.,

Cox,C., Coyle,M.D., Dathorne,S.R., David,R.,

K.R., Delgado,O., Denn,A.L., Ding,Y., Dinh,H.H.,

te,K.J., Draper,H., Dugan-Rocha,S., Durbin,K.J.,

te,K.J., Draper,H., Dugan-Rocha,S., Durbin,K.J.,

te,K.J., Gao,J., Garcia,A., Garner,T., Garza,N., Gill,R.,

J.H., Guevara,W., Gunaratne,P., Hale,S., Hamilton,K.,

Harris,K., Hart,M., Havlak,P., Hawee,A., He,X.,

"L., Harris,K., Hart,M., Hogues,M., Hogues,M., Holloway,C.,

iz,J., Hernandez,O., Hodgson,A., Hogues,M., Holloway,C.,

JOURNAL REFERENCE AUTHORS TITLE JOURNAL

REFERENCE AUTHORS TITLE JOURNAL

Direct Submission

Submitted (25-APR-2002) Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

4 (bases 1 to 164953)

Worley, K.C.

Direct Submission

Submitted (28-MAR-2002) Human Geneme Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

Source Submission

L Submitted (25-APR-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

Source Submission

L Submitted (25-SEP-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

Commar 28, 2002 this sequence version replaced gi:19172796.

INFORMATION: http://www.hgsc.bcm.tmc.edu/ or email REFERENCE AUTHORS TITLE JOURNAL

REFERENCE AUTHORS TITLE JOURNAL

REFERENCE

r and Human Genetics, Baylor College of Medicine, One a, Houston, TX 77030, USA 2002 this sequence version replaced gi:19172796.

http://www.hgsc.bcm.tmc.edu/ or email tmc.edu AUTHORS TITLE JOURNAL

gc-help@bcm

COMMENT

CLONE LENGTH: This sequence does not necessarily represent the entire insert of this clone. Overlapping regions of clones are only sequenced and submitted once, so the sequence for the remainder of the insert may be found in the record for the adjacent clones. Overlapping clones are noted at the beginning and end of the Features listing.

OF FEATURES: ANNOTATION

STSs are identified using ePCR (Genome Res. 7:541-550) searches of a local database that includes entries from dbSTS, GDB, and local mapping efforts.

re identified using RepeatMasker (A. Smit and P. Green,) for Human and Mouse sequences. Repeats annpublished

complement(16916. .17151)
/rpt_family="L1MEc"
complement(17156. .18175)

repeat_region repeat_region repeat_region

Genes and Region of sequence similarity are identified by BLAST (Nuc. Acids Res. 25:3389-3402) similarity (expect < 1e-34) to the EST and cDNA sequences. Genes demonstrate at least two exons flanked by consensus splice sites that maintained sequence continuity across the splice junctions. Sequences that are not identical matches are annotated as similar.

SEQUENCING READ COVERAGE:Sequencing is completed to a minimum standard of double strand coverage with a minimum of 2 clones and 2 reads with no ambiguities or 2 chemistries with a minimum of 2 clones and 3 reads with no ambiguities. If the sequence quality for a region does not meet this standard, it will be indicated in the annotation as Low Coverage.

QUALITY OF INDIVIDUAL BASES: This sequence meets stringent quality standards - estimated error rate less than 1 per 10,000 bases. Reports of lowest quality individual bases and measures of base quality are listed below. Description of the metrics can be found

http://gc.bcm.tmc.edu:8088/quality.info/genbank.annotation.html.

```
.2055 of clone AC023049"
                                                                                                                                                                                                                                                                                                                                                                                                                                         function="trinucleotide tandem repeat"
                                                                                                                                                      /function="clone overlap"
complement (81. .571)
/rpt_family="LIMC/D"
complement (802. .1221)
/rpt_family="LIM4"
complement (1351. .3211)
                                                                                                                                                                                                                                                                                                                                                                                                                                                   7144. 7401

/rpt_family="(CCA)n"

7509. 7591

/rpt_family="MIR"

complement (9509. .9612)

/rpt_family="L1MB6"

complement (10594. .10729)

/rpt_family="MIR"

10810. .11005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /rpt_family="AT_rich"
12284. 12589
/rpt_family="AluSx"
12914. .13614
/rpt_family="LIMC1"
complement (14500. .14605)
/rpt_family="HAL1"
complement (16916. .17151)
                                                                                                                                                                                                                                /rpt_family="L1MB2"
complement (4306. .4615)
/rpt_family="Alusx"
5734. .5828
                                             /organism="Homo sapiens"
                                                          /mol_type="genomic_DNA"
/db_xref="taxon:9606"
/chromosome="3"
                                                                                                                         complement(1. .2055)
/note="overlaps bases 1
                                                                                                                                                                                                                                                                                                                                                            rpt_family="AluJb"
496. 713.
                                                                                                                                                                                                                                                                                                                                                                                                       rpt_family="(CCA)n"
              Location/Qualifiers
1. .164953
                                                                                                            /clone="RP11-461M2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /rpt_family="MIR"
11077. .11124
/rpt_family="L2"
11922. .11942
                                                                                                                                                                                                                                                                                               5734. .5828
/rpt_family="L2"
5932. .6109
/rpt_family="L2"
complement(6172. .
                                                                                                                                                                                                                                                                                                                                                                                                                            .7300
QUALSTAT-REPORT
                                                                                                                                                                                                     repeat_region
                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                source
              FEATURES
```

```
25494
                                                                                                                                                                                                                                                                                                                                                                                                  25734
                                                                                                                                                                            26034
                                                                                                                                                                                                                      25974
                                                                                                                                                                                                                                                                 25914
                                                                                                                                                                                                                                                                                                             25854
                                                                                                                                                                                                                                                                                                                                                         25794
                                                                                                                                                                                                                                            1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TEGTEGCATACACCTGTAGTCCCAGCATTCCCGGGAGGCTGAGGTGGGAGGATCACTTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25853 AAGCTCACTGATCCTAATTCTTTTCCCTTTGAGGTCTTTTGAGGTCTTTGATTGTACATGATA
                                                                                                                                                                                                                                                                                                                                                                                                  GTAAGTGTAAGCCATGTAAAAGTAAATAATGTCTGGGCACAGTGGCTCACGCCTGTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGGCAACATGGAGAAGCCCTGTCTCTACAAAATACAGAGAAAAAATCAGCCAGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25613 TGGTGGCCTACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTGGGAGGATCACTTGAG
                                                                                                                                                      TCCACTGGAGTCCTCTTTCTGTCGCGGGTCAGAAATTGTCCCTAGATGAAATTTTTCTGTGAAAATTTCTCTAGAGAAAATTTCCACTGGAGTCCTTTCTGTCGCGGGTCAGAAATTGTCCCTAGAATGAGAAAATTTCTCCTAGAATTGTCCCTAGAATGAGAAAATT
                                                                                                                                                                                                ATTITITITAATTIAAGICCTAAATATAGTIAAAATAAATAATGTITITAGTAAATGATA
                                                                                                            TICTACTGCTGTTGACATCTTCTTATTACAGCAACACCATTCTAGGAGTTTCCTGAGCTC
                                                                                                                         TTCTGCTGTTTGAATTTTGTCTCCCCACCCCCAACTTGGCTAGTAATAAACACTTACTGA
                                                                            ACACTGTGATCTTAAAAGTTACCAAACCAAAGTCATTTTCAGTTTGAGGCAACCAAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACO84436 182726 bp DNA linear Homo sapiens chromosome 3 clone RP11-468E18 map 3, SEQUENCE, 35 unordered pieces.
ACO84436 ACO84436.2 GI:12229369
HTG; HTGS_PHASE1; HTGS_DRAFT.
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTAGGTTAAAACTAATTCTTTAA 2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2098
                                                                                                                                                                                                                                                                                                                25913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1978
                                                                                                                                                                                                                          26033
                                                                                                                                                                                                                                                                                                                                      1781
                                                                                                                                                                                                                                                                                                                                                                                                        25793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25673
                                                                                                                                                                                26093
                                                                                                                                                                                                      1601
                                                                                                                                                                                                                                                                                                                                                                                  1783
                                                                    1421
                                                                                           26213
                                                                                                                  1481
                                                                                                                                                           1541
                                                                                                                                                                                                                                                                                            1721
      26333
                                                26273
                                                                                                                                      26153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 9
ACO84436/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ਨੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                      충
                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                            ð
                                               g
                                                                                      <del>Q</del>
                                                                                                          √ &
                                                                                                                                 g
                                                                                                                                                         δ
                                                                                                                                                                              g
                                                                                                                                                                                                      ⋧
                                                                     ð
                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1360
                                                                                                                                                                                                                                                                                                                                                                         26874
                                                                                                                                                                                                                                                                                                                                                                                                                   26814
                                                                                                                                                                                                                                                                                                                                                                                                                                                              26754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    940
                                                                                                                                                                                                                                                                                                                                                                                               820
                                                                                                                                                                                                                                                                                                                                                                                                                                          880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1181 TITGATGATTTAGACAGACTCCCCCTCTTCCTCCTAGTCAATAAACCCATTGATGATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TICIGCIGITIGAATITIGICICCCCCCCCCCCACTIGGCTAGIAATAAACACTIACIGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26933 CAGCTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCCTACAAGCCTGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAGTTATTATGAATTAGAGGCTATAGCTCACATTTTCAATCCTCTATTTCT
                                                                                                                                                                                                                                                                                                                                                                                             GCCAGCACTGGCTTTGGGTCCAACACCAAAAACAAGAAAATATACGATGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                            26873 CTTCAAGGCCAGCACTGGCTTTGGGTCCAACACCAAAAACAAGAAGATATACGATGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAGAGGACGAGGTACAATCTTATCCTTCCAAGCACGACTATGTGTAATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      nggagagccaaatggtcttagcctcagtcttctgtctctaaatattccaccata
                                                                                                                                                                                                                                                                                                                              3; Indels 103; Gaps
                                                                                                                                                                                                                                                                                                        Length 164953
                                                                                                                                                                                                                                                                                                                                                      701 CAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCCTA
                                                                                                                                                                                                                                                                                                           ω
.,
                                                                                                                                                                                                                                                                                                          .2; DB 9;
5.4e-287;
                                                                                                                                                                                                                                                                                                         Query Match 61.4%; Score 1303.2; Best Local Similarity 93.0%; Pred. No. 6.4e Matches 1418; Conservative 0; Mismatches
       /rpt_family="Lime"
18458. .18481
/rpt_family="(T)n"
19306. .19334
/rpt_family="AT_rich"
19395. .19477
/rpt_family="MIR"
19623. .19619
/rpt_family="MIR"
19725. .19877
/rpt_family="MIR"
19725. .19877
/rpt_family="MIR"
20042. .20473
/rpt_family="MIR"
20142. .20473
/rpt_family="MIR"
20042. .20473
/rpt_family="MIR"
20042. .20473
/rpt_family="MIR"
20042. .20473
/rpt_family="MIR"
2415. .23676
/rpt_family="MIR"
24415. .24534
/rpt_family="MIR"
24415. .24534
/rpt_family="MIR"
25158. .25268
/rpt_family="MIR"
25158. .25268
                                                                                                                                                                                                                                                                                                                                                                                                  CTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1061 AAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ||||||
26813 TGCCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       881 TAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26573 AAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26453 TTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1001 CATCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26513 TTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26693 rcccar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26633 CATCTI
                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                repeat_region
                     repeat_region
                                                                repeat_region
                                                                                      repeat_region
                                                                                                           repeat_region
                                                                                                                                 repeat_region
                                                                                                                                                                            repeat_region
                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                      repeat_region
                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1121
                                                                                                                                                                                                                                                                                                                                                                                                  761
                                                                                                                                                                                                                                                                                                                                                                                                                                             821
                                                                                                                                                                                                                                           STS
```

음 장

ð

Ωp

8 8

දි දි

8 8 8 8

8 8

g

ਨੇ

g

ઠ

පු පු

```
Enkaryota; Metazoa; Chordata; Craniata; Vertebrata; Enteleostomi, Mammila; Entheria Primates; Catarriini; Hominidae; Homo.

1. (Boases I. C. 182726)

Birren B. Linicoli., Nuebaum, C. and Lander, E. Abraham, H. Allen, N., Mones spained chromosome 3, clone RP11-468218

Birren B. Linicoli., Nuebaum, C. indander, E. Abraham, H. Allen, N., Mones spained chromosome 3, clone RP11-468218

Birren B. Linicoli., Nuebaum, C. indangopiano, A. Gaelle, A., Batren B. Linicoli., Nuebaum, C. indangopiano, A. Gaelle, A., Batren B. Linicoli., Nuebaum, C. indangopiano, A. Gaelle, A., Berteniano, M. Gaelle, A., Goodes, S. Ferreira, P., Deteriano, A., Gaelle, A., Deteriano, A., Gaelle, A., Deteriano, A., Gaelle, A., Deteriano, A., Gaelle, A., Goodes, S. Ferreira, P., Deteriano, A., Gaelle, A., Goodes, S. Ferreira, P., Deteriano, A., Gaelle, A., Goodes, S. Ferreira, P., Deteriano, A., Gaelle, A., Garano, A., Gaelle, A., Garano, A., Gaelle, A., Garano, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         --- Genome Center
Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center clone name: 468 E 18
------ Summary Statistics
Sequencing vector: Plasmid; n/a; 100% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Phrap; version 0.960731
Consensus quality: 168531 bases at least Q40
Consensus quality: 175180 bases at least Q30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center code: WIBK
Web site: http://www-seq.wi.mit.edu
Contact: sequence_submissions@genome.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Center:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center
Center
                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
```

COMMENT

```
NOTE: This is a 'working draft' sequence. It currently consists of 35 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
Consensus quality: 177830 bases at least Q20
Insert size: 179326; sum-of-contigs
Quality coverage: 4.5 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of 2535 bp in length
100 bp
of 19970 bp in length
100 bp
of 2592 bp in length
100 bp
                                                                                                                                                                          contig of 1676 bp in length gap of 100 bp contig of 891 bp in length gap of 100 bp contig of 353 bp in length gap of 100 bp contig of 699 bp in length gap of 100 bp contig of 1391 bp in length gap of 100 bp contig of 1391 bp in length gap of 100 bp contig of 1396 bp in length gap of 100 bp contig of 2336 bp in length gap of 100 bp contig of 2336 bp in length gap of 100 bp contig of 2399 bp in length gap of 100 bp contig of 2395 bp in length gap of 100 bp contig of 2395 bp in length gap of 100 bp contig of 2395 bp in length gap of 100 bp contig of 2345 bp in length gap of 100 bp contig of 2345 bp in length gap of 100 bp contig of 2345 bp in length gap of 100 bp contig of 2345 bp in length gap of 100 bp contig of 2345 bp in length gap of 100 bp contig of 2345 bp in length gap of 100 bp contig of 4857 bp in length gap of 100 bp contig of 4857 bp in length gap of 100 bp contig of 6437 bp in length gap of 100 bp contig of 6437 bp in length gap of 100 bp contig of 6437 bp in length gap of 100 bp contig of 6806 bp in length gap of 100 bp contig of 6806 bp in length gap of 100 bp contig of 6805 bp in length gap of 100 bp contig of 6805 bp in length gap of 100 bp contig of 6805 bp in length gap of 100 bp contig of 6805 bp in length gap of 100 bp contig of 6805 bp in length gap of 100 bp contig of 6805 bp in length gap of 100 bp contig of 6805 bp in length gap of 100 bp contig of 6805 bp in length gap of 100 bp contig of 6805 bp in length gap of 100 bp contig of 6805 bp in length gap of 100 bp contig of 6805 bp in length gap of 100 bp contig of 6805 bp in length gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 bp
of 2345 bp in length
100 bp
of 1703 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                        .00 bp
if 2809 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100 bp
of 2509 bp in length
100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100 bp
of 9965 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100 bp
of 8991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gap of
contig
gap of
contig
                                                                                                                                                                                             1776:
2667:
2767:
3120:
                                                                                                                                                                                                                                                        3220:
3919:
                                                                                                                                                                                                                                                                                                    4921:
5021:
                                                                                                                                                                                                                                                                                        4019:
                                                                                                                                                                                                                                                                                                                                                                                                                                           11618;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14527:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27850:
27950:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83587:
89034:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9340:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95410:
95510:
103565:
112595:
112695:
                                                                                                                                                                                                                                                                                                                                                   6512:
7808:
7908:
                                                                                                                                                                                                                                                                                                                                                                                                              9182:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  53157:
54860:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60975:
61075:
65932:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               89134:
                                                                                                                                                                                                                                                                                                                                                                                               9082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    53057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              57045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  83487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                54960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   76681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19441
222607
222707
22316
22316
224851
449621
48021
53058
53158
54861
54961
57046
60976
                                                                                                                                                                                             1677
1777
2668
2268
33121
3321
3321
49020
6413
6513
7809
9083
                                                                                                                                                                                                                                                                                                                                                                                                                           9183
11519
11619
14428
14528
16441
16541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70045
70145
76582
76682
83588
83588
89035
98135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     112596
112696
122661
122761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      65933
66033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         103566
103666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95511
```

in length

qq

```
46093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 46273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          46213
                                                                                                                              46993
                                                                                                                                                                        46933
                                                                                                                                                                                                                                                          46813
                                                                                                                                                                                                                                                                                                                                             46693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1857
                                                                                                                                                                                                                                   1420
                                                                                                                                                                                                                                                                                                    46753
                                                                                                                                                                                            1360
                                                                                                                                                                                                                                                                               1480
                                                                                                                                                                                                                                                                                                                                                                   1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTAGCACTTTGGGAGGCTGAGGAAGGATCACTTGAGCCCAGAAGTTCGAGACTAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46452 AAGCTCACTGATCCTAATTCTTTCCCTTTGAGGTCTCTATGGCTCTGATTGTACATGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        46512 IGCTTTGACATTGTCTATATGGTACTTTGTAAAGTCATGCTTAAGTACAAATTCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1601 ATTITITAATTTAAGTCCTAAATATAGTTAAAATAAATAATGTTTAGTAAAATGATA
                                                                                                                                                                                                                                                                                                                                                                                                                         CACTATCTCTGTGAAATAGCCTCACCCCTACATGTGGATAGAAGGAAATGAAAAAATAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCTTTGACATTGTCTATATGGTACTTTGTAAAGTCATGCTTAAGTACAAATTCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cresceaacarcadeaccerstereracaaaaracagagaaaaaareageea
                                                             TICTACTGCTGTTGACATCTTCTTATTACAGCAACACCATTCTAGGAGTTTCCTGAGCTC
47232 CATCTTTGGAGAGGCCAAATGGTCTTAGCCTCAGTCTCTGTCTCTAAATATTCCACCATA
                                                                                                         TTTGATGATTAGACAGACTCCCCTCTTCCTCCTAGTCAATAAACCCATTGATGATCTA
                                                                                                                                                                                                                                                                                                                                                                   TCCACTGGAGTCCTCTTCTGTCGCGGGTCAGAAATTGTCCCTAGATGAGAAAATT
                                                                                                                      AAACAGCTGAGTTATTATTAGAGGCTATAGCTCACATTTTCAATCCTCTATTTCT
                       TITATGAATTAGAGGCTATAGCTCACATTTTCAATCCTCTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    46332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       46212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            46392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             46272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 46152
                                                                                                                                                                                                                   46932
                                                                                                                                                                                                                                                                                                                                                46752
                                                                                                                                                                                                                                                                                                                                                                      1541
                                                                                                                                                                                                                                                                                                                                                                                          46692
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1798
                                                                                                                                                                                                                                                                                                                             1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1783
                                                                                                                                                     1241
                                                                                       47112
                                                                                                                                                                          46992
                                                                                                                                                                                                1301
                                              47172
                                                                   1121
                                                                                                             1181
                                                                                                                                 47052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                충
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \stackrel{\triangleright}{\sigma}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                        gg
                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                    ठ
                                                                                                                                                                          d
                                                                                                                                                                                                                g
                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                  ठे
                         8
                                                             à
                                                                                  d
                                                                                                            \delta
                                                                                                                             g
                                                                                                                                                ð
                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       47413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             47473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   47233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGAGAGGCCAAATGGTCTTAGCCTCAGTCTCTGTCTCTAAATATTCCACCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACAGAGGACGAGGTACAATCTTATCCTTCCAAGCACGACTATGTGTAATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               47352 TAAGACCTCTCAGCACGGGGGGAAGAAACTCCCGGAGAGGTCACCCCAAAAAACAAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u> Daaagecerriterrateargecricaegecacaergritectracaagecrigaage</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   701 CAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCCTACAAGCCTGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      47472 CTTCAAGGCCAGCACTGGCTTTGGGTCCAACACCAAAAACAAGAAGATATACGATGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACAGAGGACGAGGTACAATCTTATCCTTCCAAGCACGACTATGTGTAATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 182726;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    103;
     1352 131851: gap of 100 bp

1852 144507: contig of 12656 bp in length

1508 144607: gap of 100 bp

1608 160481: contig of 15874 bp in length

1582 160581: gap of 100 bp

1582 181386: contig of 20805 bp in length

1387 181486: gap of 100 bp

1487 182726: contig of 1240 bp in length.

10cation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                              BAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61.4%; Score 1303.2; DB (LY 93.0%; Pred. No. 6.6e-287; servative 0; Mismatches 3;
                                                                                                                                                                   /clone="RP11-468E18"
/clone_lib="RPCI-11 Human Male
1, .1676
/note="assembly_fragment
                                                                                                                                                                                                         clone end:SP6
vector_side:left"
1777. 2667
/note="assembly_fragment"
2768. 3120
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                   5022. .6412
/note="assembly_fragment"
6513. .7808
/note="assembly_fragment"
7909. .9082
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                     11619. .14427
/note="assembly_fragment"
14528. .16440
/note="assembly_fragment"
                                                                                                                                                                                                                                                                        3221. .3919
/note="assembly_fragment"
4020. .4921
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                9183. .11518
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                 16541. .19340
/note="aggembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19441, .22606
/note="assembly_fragment"
22707, .25215
                                                                                                               /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="3"
/map="3"
      131752
131852
144508
144608
160482
160582
181387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similari
Matches 1418; Cons
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   761 CITCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  47292 rccar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              47532 CAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 47412 TGCCCG
                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            821
                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Пþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
```

8 g δ

ठे

 δ

ਨੋ

d ठ

```
misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                               ACO10810

ACO10810

ACO10810

None sapiens clone RP11-3E13, WORKING DRAFT SEQUENCE, 19 unordered pieces

ACO10810.3 G1:7630669

HTG; HTGS PRASE; HTGS DRAFT.

Howo sapiens (human)

ISM HTG; PRASE; HTGS DRAFT.

HOWO sapiens (human)

ISM HTG; PLASE; HTGS DRAFT.

HOWO sapiens (human)

ISM HTG; PLASE; HTGS DRAFT.

AL DASSE; HTG PRIMATES; Catarrhini; Hominidae; Homo.

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

Birren, B. Linton, L., Nusbaum, C. and Lander, E.

AL Dapublished

CE Birren, B. Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, M., Balren, B., Linton, L., Musbaum, C., Lander, E., Allen, N., Anderson, M., Balwin, J., Barna, N., Beckerly, R., Boquslavkiy, L., Boukhgaler, B., Collins, S., Collins, A., Howland, J.C., Gardyna, C., Gander, C., Rann, L., Karatas, A., Horton, L., Howland, J.C., Johnson, R., Jones, C., Kann, L., Karatas, A., Mein, J., Ferreira, P., Fitzhugh, W., Forrest, C., Funke, R., Gage, D., Gaddyna, S., Gardy, C., Kann, L., Karatas, A., Mein, J., McBwan, P., McGurk, A., McKernan, K., McLandyllin, J., Meldrim, J., McGwan, P., Nordan, P., Nordan, P., Nordan, P., Nordan, P., Nordan, C., Locke, K., McGonnald, P., Peterson, K., Pollara, V., Rilley, R., Noy, A., Santos, R., Severy, P., Stange-Thomann, N., Stolanovic, M., Subramanian, A., Talanas, J., Wyman, D., Ye, W. J., Zimmer, A. and Zody, M.

Direct Submission

Napa, L., 2000 Charles Street, Cambridge, MA 02141, USA

All repeats were identified using RepeatMasker: html

Center Code: Wilse

Center Code: Wilse
                                 46092 ATAGCGAGATCCTGTCTAAAAAATAAAAATAAATGGAACACAGCAAGTCCTAGGA 46033
        2097
    TCCTGTCTAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAGAAGTCCTAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NOTE: This is a 'working draft' sequence. It currently consists of 19 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center project name: 12718

Center clone name: 12718

Center clone name: 12718

Center clone name: 12718

Center clone name: 5tatistics
Sequencing vector: M13; M77815; 100% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Phrap; version 0.960731

Consensus quality: 120145 bases at least Q40

Consensus quality: 137192 bases at least Q20

Insert size: 150000; agarose-fp
Insert size: 143677; sum-of-contigs
Quality coverage: 3.0 in Q20 bases; agarose-fp
Quality coverage: 3.2 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              size: 143677; sum-of-contigs
coverage: 3.0 in Q20 bases; agarose-fp
coverage: 3.2 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center code: WIBR
Web site: http://www-seq.wi.mit.edu
Contact: sequence submissions@genome.wi.mit.edu
                                                                                                                                                                 AAACTAATTCTTTAA 46009
                                                                                                     2098 AGTAGGTTAA
|||||||||
46032 AGTAGGTTAA
2038 ATAGCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center
Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          * * * * *
                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                         RESULT 10
AC010810
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
```

```
This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                   1275: contig of 1275 bp in length
1276: 2116: contig of 741 bp in length
2216: gap of 100 bp
2217: 3805: contig of 741 bp in length
2217: 3805: contig of 1589 bp in length
3905: gap of 100 bp
3905: gap of 100 bp
7024: gap of 100 bp
7024: 10577: contig of 3554 bp in length
7024: 10577: contig of 3926 bp in length
7024: 10577: contig of 3926 bp in length
7024: 10577: gap of 100 bp
7024: 10577: gap of 100 bp
7026: 14703: gap of 100 bp
7028: 14603: contig of 6815 bp in length
7028: 24518: contig of 7409 bp in length
7029: 24518: contig of 6815 bp in length
7029: 24518: contig of 7842 bp in length
7029: 25777: contig of 7843 bp in length
7029: 25777: contig of 7843 bp in length
7029: 25777: contig of 7801 bp in length
7029: 25777: contig of 7801 bp in length
7029: 25777: contig of 100 bp
70209: 25778: gap of 100 bp
70209: 2578: gap of 100 bp
70209: 2578: gap of 100 bp
70209: 2578: gap of 100 bp
70209: 25711: contig of 10811 bp in length
70209: 2811: gap of 100 bp
70209: 2811: gap of 100 bp
70209: 2811: gap of 100 bp
70209: 2812: gap of 100 bp
70209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clone_lib="RPCI-11 Human Male BAC"
...1275
.note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /376..2116
/note="assembly_fragment
clone_end:T7
vector_side:right"
2217..3805
/note="assembly_fragment"
3906..6923
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7024. 10577

/note="assembly_fragment"

10678. 14603

/note="assembly_fragment"

14704. 19307

/note="assembly_fragment"

19408. 24518

/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24619. ... 32027
/note="assembly_fragment"
32128. .38942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/clone="RP11-3E13"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           vector_side:right"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lone end:SP6
                                                                                                                                                                                                                                                                                       7024
10578
10678
14604
14704
124519
32028
32028
32028
32028
32028
33043
39043
46885
63179
63179
73510
73510
73510
73510
73510
73510
73510
                                                                                                      1276
1376
2117
2217
3806
3906
```

19162

18982

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Rukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

E 1 (bases 1 to 982)
Sheppard, P.O. and Foley, K.P.
Sheppard, P.O. and Foley, K.P.
Gastric polypeptide ZSIG28

L Patent: JP 2002524103-A 1 06-AUG-2002;
ZYMOGENETICS INC
OS Homo sapiens (human)
PN JP 2002524103-A/1
PD 06-AUG-2002
PF 14-SEP-1999 JP 2000570197
PR 16-SEP-1999 US 09/154444
PI PAUL O SHEPPARD, KEVIN P FOLEY
PC C12N15/09, A61R39/00, A61R39/395, A61R39/395, A61P1/14, PC A61P3/08,
PC A61P3/08,
PC A61P3/08,
PC A61P3/104, A61P31/10, A61P35/10.C12P21/02.C12P21/08.C12O1/02.PC
                                                                                                                                                                                               PAT 17-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PC C12N1/19,C12N1/21,C12N5/10,C12P21/02,C12P21/08,C12Q1/02 PC,C12Q1/68,G01N33/15,
PC G01N33/50,G01N33/53,G01N33/577,C12N15/00,C12N5/00,A61K37/02
Gastric polypeptide ZSIG28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21 TIAGCTICACACCTICGGCAGCAGGAGGCGCCAGCTICTCGCAGGCGGCAGGGGGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAGCTTCACTCCTTCGGCAGCAGGAGGCGGCAGCTTCTCGCAGGCGGCAGGCGGCGGCG
                             rrcracricricacarcricriariacaccaaccarrcracacatricricacric
                                                                                                                                                                CACTGTCTCTGTGAAATAGCCTCCCCCTACATGTGGATAGAAGGAAATGAAAAAATA
                                                                                                    ATTITITITAATTIAAGTCCTAAATATAGTTAAAATAAATAATGTTTTAGTAAAATGATA
                                                                                                                  CACTATCTCTGTGAAATAGCCTCCCCTACATGTGGATAGAAGGAAATGAAAAAAATAAT
                                                     TCCACTGGAGTCCTCTTTCTGTCGCGGGTCAGAAATTGTCCCTAGAATGAAAATT
                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 982;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity 99.1%; Pred. No. 1.6e-207; 70; Conservative 0; Mismatches 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                                 M Gastric polypeptide ZSIG28.
BD237992.
BD237992.1 GI:33047762
JP 2002524103-A/1.
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. 982
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (70). (853)
Location/Qualifiers
                                                                                                                                                                                                                                                                  |||||||
19223 AAGCTCAC 19230
                                                                                                                                                                                                                                                    1781 AAGCTCAC 1788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              970;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S:
Matches 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Н
                                                          1541
                                                                                                         1601
                                                                                                                                                       1661
                                                                                                                                                                               19103
           1481
                                  18923
                                                                                  18983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                     LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                RESULT 11
BD237992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                            d
                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                     ð
                                 셤
                                                          ð
                                                                                d
                                                                                                         ŏ
                                                                                                                                g
                                                                                                                                                       ⋩
                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.8742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1480
                                                                                                                                                                                                                                                                                        1.8202
                                                                                                                                                                                                                                                                                                                                         18262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1360
                                                                                                                                                                                                                                                                                                                                                                                        18322
                                                                                                                                                                                                                                                                                                                                                                                                                                      1.8382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.240
                                                                                                                                                                                                                                                                                                                                                                                                                                                              0007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.060
                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                 820
                                                                                                                                                                                                                                                                                                                                                                880
                                                                                                                                                                                                                                                                                                                                                                                                               940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1181 TITGAIGAITIAGACAGACICCCCCTCTICCTCCTAGTCAATAAACCCATTGAIGATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18803 AGAAGAAGCAATAAGAGAAAGATATTTGTAATCTCTCCAGCCCATGATCTCGGTTTTCTT
                                                                                                                                                                                                                                                                                                                                                               TGCCCGCACAGAGGACGAGGTACAATCTTATCCTTCCAAGCACGACTATGTGTAATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCAATAAGAGAAAGATATTTGTAATCTCTCCAGCCCATGATCTCGGTTTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                            18203 CTTCAAGGCCAGCACTGGCTTTGGGTCCAACACCCAAAACAAGAAGATATACGATGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                TCTCAGCACGGGAGGAAGAACTCCCGGAGAGCTCACCCAAAAAACAAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGAGGCCAAATGGTCTTAGCCTCAGTCTCTGTCTTAAATATTCCACCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGAGTTATTATGAATTAGAGGCTATAGCTCACATTTTCAATCCTCTATTTCT
                                                                                                                                                                                                                                                                   AAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCCTACAAGCCTGGAGG
                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                   Length 145477;
                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                   Score 1083.2; DB 2; Length
Pred. No. 1.4e-236;
0; Mismatches 3; Indels
                                                                                               82812. .93642
/note="assembly_fragment"
93743. .109313
/note="assembly_fragment"
109414. .124437
/note="assembly_fragment"
124538. .145477
/note="assembly_fragment"
                                              /note="assembly_fragment"
/note="assembly_fragment"
/note="assembly_fragment"
/note="assembly_fragment"
46985. .55777
/note="assembly_fragment"
55878. .63178
/note="assembly_fragment"
                                                                                                                                                                                                                    Query Match
Best Local Similarity 99.7%;
Matches 1085; Conservative
                                                                                                                                                                                                                                                                     701 CAACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                   881 TAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAACAGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1241 TTTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18683 TTTCCC
                                                                                                                                                                                                                                                                                                                                                                                 |||||||
18263 TGCCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ||||||
18443 CATCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18383 TCCCATO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                 |||||
|18323 TAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1001 CATCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18503 AAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18623 TTTGAT
                                                                                                                                                                       misc_feature
                                                   misc_feature
                                                                           misc_feature
                                                                                                   misc_feature
                                                                                                                         misc_feature
                                                                                                                                                 misc_feature
    misc_feature
                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1061
                                                                                                                                                                                                                                                                                                                    761
                                                                                                                                                                                                                                                                                                                                                                   821
                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                \delta
                                                                                                                                                                                                                                                                                                                   \delta
```

PC

S

.. H

us-10-063-731-117.rge

Page 17

DRGANISM Homo sapiens BLAKATOTAGE, Metazoa, Chordata; Craniata; Vertebrata; Euteleostomi; Manmalia; Eutheria; Primates; Catarrhini; Hominidae; Homo: AUTHORS Blum,H., Bauersachs,S., Mewes,H.W., Gassenhuber,J. and Wiemann,S. TITLE Direct Submission JOURNAL Submitted (16-UNI-1999) MIPS, Am Klopferspitz 18a, D-82152 COMMENT Clone from S. Wiemann, Molecular Genome Analysis, German Cancer Steesacho Center (DKPZ); Email s.,wiemanne@dfz-heidelberg.de; Research Center (DKPZ); Manil s.,wiemanne@dfz-heidelberg.de; Research Center (DKPZ); Manil s.,wiemanne@dfz-heidelberg.de; Research Center (DKPZ); Ranil s.,wiemannegfz-heidelberg.de; Research Center (DKPZ); Ranil s.,wiemannegfz-he	97 28 98 97 44 99 98 97 1 1 1 2 2 2 2 7	
Y 811 % 141 % 141 % 201 % 201 % 321 % 321 % 341 % 441	10	RESULT 12 HSM800576/c LOCUS HSM800576 LOCUS HSM800576 LOCUS ALO80075 ACCESSION ALO80075 VERSION ALO80075 KEYWORDS SOURCE Homo sapiens (human)

PACCACATGCCAAGTGGTGGCGTTCCTCGTCCATCCTGGGGCTGGCCGGCTGCATC 15 DACCACGTGCCAAGTGGTGGCGTTCTCTCTGTCCTCTGGGCTGGCCGGCTGCATC 13 DACCACGTGCCAGGTGGTGGAGCTTCTCCTGTCCTCTGGGTCTGGCCGGCTGCATA 13 SGCCACCGGGATGGACATGTGGAGCACCCAGGACCTGTATGACAACCCCGTCACCTCC 21 SGCCACCGGGATGGACATGTGGAGCACTCAAGACCTGTATGACAACCCCGTCACCCCC 19 STTCCAGTATGAAGGGCTCTGGAGGACTCCAGGACTTCAGGCTTCACGGA 27 STTCCAGTATGAAGGGCTCTGGAGGACTTCCAGCCAGAGTTCAGGCTTCACCGAG 25 CAGGCCCTATTTCACCATCCTGGAGACTTCCAGCCATGCTGCAGGCTTCAGGGTTCACCGAG 25 CAGGCCCTATTTCACCATCCTGGAGCTTCCAGCCATGCTGCAGGCTTCAGGGCCCTG 31 CAGGCCCTATTTCACCATCCTGGAGCTTCCAGCCATGCTGCAAGCTGTACGAGCCCTG 31 CAGGCCCATACTTCACCATCCTGGGCCTTCCAGCCATGCTGCAAAA 39 SATCGTAAGGCATCGTCCTGGGTGCCATTGGCCTCGAAAA 39	4 AIGAICGIGGGCAITGITCIGGGGICAICGGIAICCIGIGICCAICTICGCCCTGAAG 37. 6 TGCAICGCGATTGGCAGGACTCTGCCAAGCCAACATGACATG		2AGAAGAAACCAAAGCCGTTTCTTATCATGCCTCAGGCCACAGTGTTGCC 7. 2AGAAGAAACCAAAAGCTGTGTCTTACCATGCCTCTGGCCAAAATGTTGC 7. 2AGATGACAGCAACTGGCTGTGTCTTACCATGCCTCTGGCCAAAATGTTGC 7. AGCCTGGAGGCTTCAAGGCCAGCACTGGCTTTGGGTCCAACACCAAAAACAAGAAG 8. BGCCTGGAGGCTTTAAGGCCAGCAGGCTGGCTCCAACACCAAAACAAGAAG 7. ACGATGGAGGTGCCCGCACAGGAGGACGAGGTACAATCTTATCCTTCCAAGCACGAC 8. ACGATGGAGGTGCCCGCACAGAAGACGATGAACAATCTTATCCTTCCAAGCACGAC 8. ACGATGGAGGTGCCCGCACAGAAGACGATGAACAATCTTATCCTTCCAAGCACGAC 8.	AACTCCCGGAGA 918	38 CTGTCTCTAAATATTCCACCAT 33 CTGCCTCTAAATATCCCATCAC 95 GCTCACATTTTCAATCCTCTAT 95 ACACTCTTTAGCCCAACCT 93 ACACTCACTTTAGCCCAACCCT
3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 <td>8 8 8 8 8</td> <td>8 8 8 8 8</td> <td>oy oy og</td> <td>8 6 8 6 8</td> <td>ठे ते ठे ते </td>	8 8 8 8 8	8 8 8 8 8	oy oy og	8 6 8 6 8	ठे ते ठे ते
Db 345 TTTCCCAGCTTATCCCCAAGAAAACTTTTGAAAGGAAAG	QY 1541 TCCACTGGAGTCCTC 1555	VERSION YERWORDS KEYWORDS SOURCE Mus musculus (house mouse) ORGANISM mus musculus ORGANISM mus musculus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. REFERENCE 1 (bases 1 to 2786) AUTHORS Niimi,T., Nagashima,K., Ward,J.M., Minoo,P., Zimonjic,D.B., Popescu,N.C. and Kimura,S. TITLE Claudin-18, a novel downstream target gene for the T/EBP/NKX2.1 homeodomain transcription factor, encodes lung- and	jh alternative 7390 (2001) ory of Metabol kville Pike, B	/mol_type="mRNA" /db_xref="taxon:10090" 68862 /codon_start=1 /product="Claudin-18" /protein_id="AAF26447.1" /db_xref="G1:6715516" /translation="MATTTCQVVGLLLSLIGLAGCIAATGMDMWSTQDLYDNPVTAVF QYEGLWRSCVQQSSGFTECRPYFTILGLPAMLQAVRALMIVGIVLGVIGILVSIFALK CIRIGSMDDSAKAKMTLTSGILFIISGICAIIGVSVFANMLVTNFWMSTANMYSGMGG MGGMVQTVQTRYTFGAALFVGWVAGGITLIGGVWMCIACRGLTPDDSNFKAVSYHASG ANDANAVDFGGFKASATGFGSWTRNKYTYDGGSHFTRDDBSNFKAVSYHASG	ORIGIN Query Match Query Match Best Local Similarity 73.4%; Pred. No. 1.2e-180; Matches 1300; Conservative 0; Mismatches 418; Indels 52; Gaps 16; Qy 36 CGGCAGCAGGAGGCGGCAGCTTCTCGCAGGCGGCGGCGGCCAGGATCATGTCC 95

ô 140

Gaps

200 120 260 180 320

9

380 300 440 360 500 420 560 480 620 540 680 900

800 099

```
/product="Claudin-18"
/product="Claudin-18"
/protein_id="AAF26448.1"
/db_xref="GI:6715518"
/translation="MSTTTCQVVAFILSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGFTECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLTSGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMYQTVQTRYTFGAALFVGWVAGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKIYDGGARTEDEVQSYFSKHDYV"
                                                                                                                                                                                                                                         TCAGGCTTCACCGAATGCAGGCCCTATTTCACCATCCTGGGACTTCCAGCCATGCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                       GCCAGGATCATGTCCACCACACATGCCAAGTGGTGGCGTTCCTCCTGTCCATCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCTTTGCCCTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCCTCCTGGTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                               GCAGTGCGAGCCCTGATGTTGTAGGCATCGTCCTGGGTGCCATTGGCCTCCTGGTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGTTTGCCAACATGCTGGTGACTTCTGGATGTCCACAGCTAACATGTACACGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGGGTGGGTGCAGACTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGGGTGGGATGGTGCAGACTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCCTGGCACCAGAAACCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTGCCTACAAGCCTGGAGGCTTCAAGGCCACTGGCTTTGGGTCCAACACAAAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCCTGGCACCAGAAGCCAACTACAAAGCCGTTTCTTATCATGCCTCAGGCCACAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGCCGGCTGCATCGCGGCCACCGGGATGTGGAGGAGCACCCAGGACCTGTA
                                                                                                                                                                                                        .;
0
                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                         GCAGTGCGAGCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATT
                                                                                                                                                                            18.5%; Score 816; DB 9; Le ilarity 100.0%; Pred. No. 6.5e-176; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /mol_type="mRNA"
/db_xref="taxon:9606"
10._.795
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACACTGACCTCCGGGATCATGTTCATTGT
                                                                                                                                                                         Query Match
Best Local Similarity
Matches 816; Conserv
                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                                           141
                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                          261
                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                          321
                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                               CDS
                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                           Dp
                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                        ሯ
                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Db
                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \overset{\sim}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \dot{\varsigma}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                         1507
                                                                                                                                                                                                                                                                                                 1564
                                                                                                                                                                                                                                                                                                                                                 1621
                                                                                                                                                                                                                                                                                                                                                                       1618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi
                  GAATGGAATTTGACTCACAGACTAATACTTTAATGGTTTAGAGAAACTTTC---CTTCCT
                                                              1270 AAGGAAAAAAAAAATACAITAAAAAGCATTAITICCTACTCAATIGIGCCTTACCCACCCC
 ITTTAATCTCTCTCACATTTTGATGATTTAGACAGACTCCCCCTCTTCCT
                                                                                               AGTAGACCCAAAGATGTTATTTTCTGCTGTTTGAATTTTGTCTCCCCACCCC
                                                                                                                                              TAGTAATA-----AACACTTACTGAAGAAGAAGCAATAAGAGATAT
                                                                                                                                                               CTCTCCAGCCCATGATCTCGGTTTTCTTACACTGTGATCTTAAAAGTTACCA
                                                                                                                                                                                                            1445 AACCAAAGICATTTTCAGITTGAGGCAACCAAACCTTTCTACTGCTGTTGACATCTTCTT
                                                                                                                                                                                                                                                         GAAGTCAGAAATTCCCCCTAGAAGAGTAAGAAATAGATTCTTTTGGGTAACCTGAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                          TAAAATAAATAATGATATAAAATGATACACTATCTGTGAAATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                         Metabolism, DBS, National
Pike, Bethesda, MD 20892,
                                                                                                                                                                                                                                                                                                                                        i. Homo sapiens (human)
SM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostc
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
E 1 (bases 1 to 816)
Niimi,T., Nagashima,K., Ward,J.M., Minoo,P., Zimonjic,D.B.,
Popescu,N.C. and Kimura,S.
claudin-18, a novel downstream target gene for the T/EBP/NKX2.
homeodomain transcription factor, encodes lung- and
stomach-specific isoforms through alternative splicing
homeodomain transcription factor, encodes lung- and
stomach-specific isoforms through alternative splicing
D 1585919
E 2 (bases 1 to 816)
S Niimi,T. and Kimura,S.
Direct Submission
L Submitted (04-JAN-2000) Laboratory of Metabolism, DBS, Nations
Cancer Institute, NIH, 9000 Rockville Pike, Bethesda, MD 20892
Location/Qualifiers
1. 816
/organism="Homo sapiens"
                                             CCTAGTCAATAAACCCATTGATGATCTATTTCCCAGCTT-ATCCCCAAGAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRI
                                                                                                                                                                                                                                                                                             ACACCATTCTAGGAGTTTCCTGAGCTCTCCACTGGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             bp mRNA
complete cds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1741 GGTACTTTGTAAAGTCATGCTTAAGTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1739 CGTAAGATCCTATATAAATCCAAGCTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              816 b
mRNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claudin-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GI:6715517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AF221069
Homo sapiens (
AF221069
AF221069.1 G:
                                                                                              AAGGAAAGI
GAATGTGG
                                                                                                                                             CAACTTGG
                                                                                                                                                                                                                                                                                            ATTACAGCA
                                                                                                                                                                                                                                                                                                                                                                                           AAATATAGT
                                                                     CGTACTTA
                                                                                                                                                                                            TTGT-AAT
                                                                                                                                                                                                                   rrererrr
                       1153
                                             1213
                                                                     1210
1153
                                                                                              1272
                                                                                                                                             1332
                                                                                                                                                                                             1386
                                                                                                                                                                                                                  1390
                                                                                                                                                                                                                                                                                                                                                                  1559
                                                                                                                                                                                                                                                                                                                                                                                         1622
                                                                                                                                                                                                                                                                                                                                                                                                                1619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
AF221069
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
Source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                           ठ
                                                             g
                                                                                            õ
                                                                                                                                        ð
                                                                                                                                                               Пb
                                                                                                                                                                                                           g
                                                                                                                                                                                         8
                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                         P
P
P
                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
```

.rge

```
Search completed: September
Job time : 5605 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           967
                                                                                                                                                                                                                                                                                                                                                                                                     899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      795
                                                                                                                                                                                                                                                                                                                                                                                                                                    735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    728
                                                                368
                                                                                               456
                                                                                                                                 428
                                                                                                                                                                  516
                                                                                                                                                                                                   488
                                                                                                                                                                                                                                  567
                                                                                                                                                                                                                                                                    548
                                                                                                                                                                                                                                                                                                    627
                                                                                                                                                                                                                                                                                                                                   608
                                                                                                                                                                                                                                                                                                                                                                    687
308
                                396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ℧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ⋧
                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                  à
                                                                                                                                                                                                                              \overset{\sim}{\circ}
                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                              ð
                               à
                                                                                                                                                                 Mus musculus (house mouse)

Mus musculus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.

1 (bases 1 to 1409)

S Niimi,T., Nagashima,K., Ward,J.M., Minoo,P., Zimonjic,D.B.,

Popescu,N.C. and Kimura,S.

claudin-18, a novel downstream target gene for the T/EBP/NKX2.1

homeodomain transcription factor, encodes lung- and

stomach-specific isoforms through alternative splicing

Nol. Cell. Biol. 21 (21), 7380-7390 (2001)

E 21470315

E 2 (bases 1 to 1409)

Nimi,T. and Kimura,S.

Direct Submission

Location/Qualifiers

Institute, NIH, 9000 Rockville Pike, Bethesda, MD 20892, USA

Location/Qualifiers

Lice (Lice (Lice
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /codon_start=1
/codon_start=1
/product="claudin-18A1.2"
/product="claudin-18A1.2"
/product="d="AAL15635.1"
/db_xref="G1:16224163"
/translation="MATTTCQVVGLLLSLIGLAGCIAATGMDMWSTQDLYDNPVTAVF
QYEGLWRSCVQQSSGFTECRPYFTILGLPAMLQAVRALMIVGIVLGVIGILVSIFALK
CIRIGSMDDSAKAKMTLTSGILFIISGICAIIGVSVFANMLVTNFWMSTANMYSGMGG
MGGMVQTVQTRYTFGAALFVGWVAGGLTLIGGVMMCIACRGLTPDDSK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 127
                                                                  mRNA linear ROD 18-OCT-2001 complete cds, alternatively
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATGCCAAGTGGTGGCGTTCCTGTCCATCCTGGGGGCTGGCCGGCTGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGTTCCAGTACGAAGGGCTCTGGAGGAGCTGCGTGAGGCAGAGTTCAGGCTTCACCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cadcaagadegredregredredradecered--ececadeadereaagecardeece
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 733.4; DB 10; Length 1409;
Pred. No. 5.8e-157;
0; Mismatches 286; Indels 42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            background of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Mus musculus"
/mol type="mRNA"
/db xref="taxon:10090"
/note="isolated from mixed back and Black Swiss mice"
62. 688
/note="alternatively spliced"
                                                                     1409 bp
claudin-18A1.2 mRNA,
                                                                                                                                         GI:16224162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 76.1%;
Matches 1047; Conservative
                                                                      AF349450
Mus musculus ospliced.
AF349450
AF349450.1 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGATC(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96 ACCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10
                                                                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                        RESULT 15
AF349450
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                              JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Пþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
경
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ದ್ದ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
```

```
1200
                                                                                                                                                                                                                                                                                                                                                                                              847
                                                                                                                                                                                                                                                                                                                                                                                                                       913
                                                                                                                                                                                                                                                                                                                                                                                                                                               907
                                                                                                487
                                                                                                                                                                                                                         989
                                                                                                                                                                                                                                                                                               727
                                                                                                                                                                                                                                                                                                                         794
                                                                                                                                                                                                                                                                                                                                                787
                                                                                                                                                                                                                                                                                                                                                                        854
                                                                                                                                                547
                                                                                                                                                                          626
                                                                                                                                                                                                607
                                                                                                                                                                                                                                                 667
                                                                                                                                                                                                                                                                         734
                          455
                                                 427
                                                                         515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAAACTTTTGAAAGGAAAGAGTAGACCCAAAGATGTTATTTTCTGCTGTTTGAATTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      carcrigergargaaritaacrcacagacraaracritaargerriagagaaacr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCCCTCTTCCTCTAGTCAATAAACCCATTGATGATCTATTTCCCAGCTT-ATCCCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gegalarititalalegalalalalalararakarakarakarakaritetee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCCTCA-GICTCTGTCTCTAAATATTCCACCATAAAACAGCTGAGTTA----TTTATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTAGAGGCTATAGGTGACATTTTCAATTGCTGTATTTTTTTAAATATAAGT--TTCT
                                                                                                                                                                        CAAAATGTTGCCTACAGGCCTGGAGGCTTTAAGGCCAGCACTGGCTTTGGGTCCAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGAGCTCACCCAAAAAACAAGGAGATCCCATCTAGATTTCTTGCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAAACAAGATATACGATGGAGGTGCCCGCACAGAGGACGAGGTACAATCTTATCCT
                                                                                                                                                                                                                                                                                                                                                                                     GTCGCTGGAGGCCTCACACTAATTGGGGGTGTGATGATGTGCATCGCCTGCCGGGGGCCTG
                                                                                                                                                                                                                                                                         ---CTACAAAGCCGTTTCTTATCATGCCTCAGGC
                                                                                                                                                                                                                                                                                                                        CACAGIGITGCCIACAAGCCIGGAGGCITCAAGGCCAGCACTGGCITIGGGICCAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                       TCCAAGCACGACTATGTGTAATGCTCTAAGACCTCTCAGCACGGCGGAAGAAACTCCC-
ATGATCGTGGGCATTGTTCTGGGGGGTCATCGTATCCTCGTGTCCATCTTCGCCCTGAAG
                        ATCATGITCATIGICICAGGICTITGIGCAAITGCIGGAGIGICIGIGITIGCCAACAIG
                                                                                        CTGGTGACTAACTTCTGGATGTCCACAGCTAACATGTACA------CCGGCATGGGT
                                                                                                                                     CTGGTGACCACTTCTGGATGTCCACAGCTAACATGTACAGCGGCATGGGCGCGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCTCCCCACCCCCAACTTGGCTAATAAACACTTACTGAAGAAGAAGCAATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCACCAGAAGAAACCAA-----
```

2, 2004, 15:58:37

```
GenCore version 5.1.6
(c) 1993 - 2004 Compugen Ltd.
               Copyright
```

sw model - nucleic search, using OM nucleic

14:08:53 ; Search time 118 Seconds (without alignments) 9975.007 Million cell updates/sec 2004, 7 September Run on:

63-731-117

US-10-0 2121 1 gagct Title: Perfect score:

ccctcaggagcgcg......ggttaaaactaattctttaa 2121 Sequence:

IDENTITY_NUC Gapop 10⁻0 , Gapext Scoring table:

segs, 277475446 residues 682709 Searched: Total number of hits satisfying chosen parameters:

Minimum DB seq length: Maximum DB seq length:

2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Patents NA:* Issued Database

1: /cgn2_6/ptodata/2/ina/5A_COMB.Beq:*
2: /cgn2_6/ptodata/2/ina/5B_COMB.Beq:*
3: /cgn2_6/ptodata/2/ina/6A_COMB.Beq:*
4: /cgn2_6/ptodata/2/ina/6B_COMB.Beq:*
5: /cgn2_6/ptodata/2/ina/PCTUS_COMB.Beq:*
6: /cgn2_6/ptodata/2/ina/PcTUS_COMB.Beq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

יייים פרן. מהיידי הפרו	111111111111111111111111111111111111111	Sequence 32. Appl		ά	Sequence 8 Appli	à	à œ	α	Sequence 42. Appl	42	29	, 6	٠,		, -	٠,)	, r	Segmence 18. April	,	4	Sequence 2, Appli	-	i	16	4 5		10,
ID		US-09-724-864-32	US-09-820-924-3	US-09-608-285A-8	US-09-350-836B-8	US-09-370-265-8	US-09-557-800C-8	US-09-370-625A-8	US-09-608-285A-42	US-09-557-800C-42	US-09-608-285A-59	US-09-435-739-42	US-09-227-357-100	US-09-835-811-3	US-09-791-211-10	US-09-780-172-18		US-09-873-404-3	US-09-679-299A-18	US-09-750-580-1	9	US-09-525-160B-2	US-09-305-639-1	US-09-525-160B-1	US-09-621-976-19010	US-09-716-129-45	US-09-146-053-6	US-09-798-096-10
DB	į	4	막	4	4	4	4	4	4	4	4	4	4	4	ታ	4	4	4	4	4	m	4	m	4	₩	4	4	4
% Query Match Length		1353	39982	9365	9365	9365	9365	9365	14747	14747	15977	44848	685	13205	98844	63000	75395	63588	17000	81001	6038	6038	7622	7622	436	1519	45546	99500
% Query Match		٠	8.2	8.1	8.1	8.1	8.1	8.1	8.1	8,1	8.1	8.0	8.0	8.0	8.0	8.0	8.0	7.9	7.9	7.8	•	7.8	7.8	7.8	7.8	7.7	7.7	7.7
Score		733	174.4	170.8	170.8	170.8	170.8	170.8	170.8	170.8	170.8	170.2	170	169.8	169.8	169.6	169.6	167.8	166.8	165.4	164.8	164.8	164.8	164.8	164.4	164.2	163.4	163.4
Result No.		- 1 (7	ო ს	Ω 4	υ O	υ υ	-	ပ	ο Ο	0 T0	c 11	12	13	14	-	c 16	c 17	18	c 19	20	217	22	23	24	25		c 27

29 163.2 7.7 43950 4 US-09-735-934A-3 Sequence 3, Appli 30 163.2 7.7 43950 4 US-10-060-332-3 Sequence 3, Appli 31 163.2 7.7 162450 4 US-09-984-890-3 Sequence 3, Appli 31 162.8 7.7 162450 4 US-09-984-890-3 Sequence 1, Appli 31 162.6 7.7 1332 4 US-09-584-568C-1 Sequence 1, Appli 31 162.2 7.6 12597 4 US-09-705-299-12 Sequence 1, Appli 31 162.2 7.6 29629 4 US-09-705-299-13 Sequence 3, Appli 31 162.2 7.6 29629 4 US-09-705-299-13 Sequence 3, Appli 31 162.2 7.6 29629 4 US-09-729-995-3 Sequence 3, Appli 31 162.2 7.6 35060 3 US-08-14-095-7 Sequence 3, Appli 31 161.2 7.6 99500 4 US-09-798-096-10 Sequence 20, Appli 41 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, Appli 41 161.2 7.6 6769 1 US-08-487-002-20 Sequence 20, Appli 41 161.2 7.6 6769 1 US-08-483-554B-20 Sequence 20, Appli 41 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 31 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, Appli 32 161.2 7.		٥	7 (2)	1				
30 163.2 7.7 43950 4 US-10-060-332-3 Sequence 3, 32 162.8 7.7 162450 4 US-09-984-890-3 Sequence 3, 32 162.8 7.7 162450 4 US-09-345-882-1 Sequence 1, 33 162.6 7.7 1332 4 US-09-584-568C-1 Sequence 1, 34 162.2 7.6 12597 4 US-09-705-299-12 Sequence 1, 35 162.2 7.6 29629 4 US-09-729-995-3 Sequence 3, 37 162.2 7.6 29629 4 US-10-135-689-3 Sequence 3, 37 162.2 7.6 35060 3 US-08-814-095-7 Sequence 3, 38 161.4 7.6 1426 4 US-09-798-096-10 Sequence 20, 41 161.2 7.6 6769 1 US-08-480-784-20 Sequence 20, 42 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 44 161.2 7.6 6769 1 US-08-483-554B-20 Sequence 20, 45 161.2 7.6 6769 1 US-08-488-011B-20		7	7.507	7.7	43950	4	US-09-735-934A-3	
163 7.7 75395 4 US-09-984-890-3 Sequence 3, 32 162.8 7.7 162450 4 US-09-345-882-1 Sequence 1, 34 162.6 7.7 1332 4 US-09-584-568C-1 Sequence 1, 34 162.2 7.6 12597 4 US-09-705-299-12 Sequence 12, 35 162.2 7.6 29629 4 US-09-705-299-3 Sequence 3, 37 162.2 7.6 29629 4 US-10-135-689-3 Sequence 3, 37 162.2 7.6 35060 3 US-08-814-095-7 Sequence 3, 38 161.6 7.6 90541 4 US-09-798-096-10 Sequence 3, 39 161.4 7.6 99500 4 US-09-798-096-10 Sequence 20, 41 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 42 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 44 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 45 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 45 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 45 161.2 7.6 6769 1 US-08-488-011B-20		30	163.2	7.7	43950	4	US-10-060-332-3	, c
32 162.8 7.7 162450 4 US-09-345-882-1 Sequence 1, 34 162.6 7.7 1332 4 US-09-584-568C-1 Sequence 1, 34 162.2 7.6 12597 4 US-09-705-299-12 Sequence 12, 35 162.2 7.6 29629 4 US-09-705-299-3 Sequence 3, 37 162.2 7.6 29629 4 US-10-135-689-3 Sequence 3, 37 162.2 7.6 35060 3 US-08-814-095-7 Sequence 3, 38 161.6 7.6 90541 4 US-09-759-359A-3 Sequence 3, 39 161.4 7.6 90541 4 US-09-798-096-10 Sequence 10, 41 161.2 7.6 6769 1 US-08-480-784-20 Sequence 20, 42 161.2 7.6 6769 1 US-08-487-002-20 Sequence 20, 44 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 44 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 44 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 45 161.2 7.6 6769 1		31	163	7.7	75395	4	US-09-984-890-3) (r
162.6 7.7 1332 4 US-09-584-568C-1 Sequence 1, 162.2 7.6 12597 4 US-09-705-299-12 Sequence 12, 162.2 7.6 29629 4 US-09-705-299-12 Sequence 3, 162.2 7.6 29629 4 US-09-729-995-3 Sequence 3, 162.2 7.6 39629 4 US-10-135-689-3 Sequence 3, 162.2 7.6 35060 3 US-08-814-095-7 Sequence 3, 161.4 7.6 90541 4 US-09-759-359A-3 Sequence 7, 161.4 7.6 9950 4 US-09-620-312D-967 Sequence 10, 161.2 7.6 6769 1 US-08-480-784-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-554B-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-011B-20 Sequence 20,	บ	32	162.8	7.7	162450	4	US-09-345-882-1	· -
162.2 7.6 12597 4 US-09-705-299-12 Sequence 12, 162.2 7.6 29629 4 US-09-729-995-3 Sequence 3, 162.2 7.6 29629 4 US-10-135-689-3 Sequence 3, 162.2 7.6 35060 3 US-08-814-095-7 Sequence 3, 161.6 7.6 90541 4 US-09-759-359A-3 Sequence 7, 161.4 7.6 1426 4 US-09-620-312D-967 Sequence 3, 161.4 7.6 99500 4 US-09-620-312D-967 Sequence 10, 161.2 7.6 6769 1 US-08-480-784-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-01B-20 Sequence 20		33	162.6	7.7	1332	4	US-09-584-568C-1	· -
162.2 7.6 29629 4 US-09-729-995-3 Sequence 3, 162.2 7.6 29629 4 US-10-135-689-3 Sequence 3, 162.2 7.6 35060 3 US-08-814-095-7 Sequence 7, 161.6 7.6 90541 4 US-09-759-359A-3 Sequence 7, 161.4 7.6 1426 4 US-09-620-312D-967 Sequence 3, 161.4 7.6 99500 4 US-09-620-312D-967 Sequence 10, 161.2 7.6 6769 1 US-08-480-784-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-554B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-01B-20 Sequence 20		34	162.2	7.6	12597	4	US-09-705-299-12	1 2
162.2 7.6 29629 4 US-10-135-689-3 Sequence 3, 162.2 7.6 35060 3 US-08-814-095-7 Sequence 7, 161.6 7.6 90541 4 US-09-759-359A-3 Sequence 7, 161.4 7.6 1426 4 US-09-620-312D-967 Sequence 3, 161.4 7.6 99500 4 US-09-620-312D-967 Sequence 967, 161.2 7.6 6769 1 US-08-480-784-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-554B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20,		35	162.2	7.6	29629	4	US-09-729-995-3	i "
162.2 7.6 35060 3 US-08-814-095-7 Sequence 7, 161.6 7.6 90541 4 US-09-759-359A-3 Sequence 3, 161.4 7.6 1426 4 US-09-620-312D-967 Sequence 967, 161.4 7.6 99500 4 US-09-798-096-10 Sequence 10, 161.2 7.6 6769 1 US-08-480-784-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-554B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20		36	162.2	7.6	29629	4	US-10-135-689-3	, r
161.6 7.6 90541 4 US-09-759-359A-3 Sequence 3,7 161.4 7.6 1426 4 US-09-620-312D-967 Sequence 967,161.4 7.6 99500 4 US-09-798-096-10 Sequence 10,161.2 7.6 6769 1 US-08-480-784-20 Sequence 20,161.2 7.6 6769 1 US-08-483-553-20 Sequence 20,161.2 7.6 6769 1 US-08-487-002-20 Sequence 20,161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20,161.2 7.6 6769 1 US-08-488-01B-20 Se		37	162.2	7.6	35060	m	US-08-814-095-7	, ,
161.4 7.6 1426 4 US-09-620-312D-967 Sequence 967, 161.4 7.6 99500 4 US-09-798-096-10 Sequence 10, 161.2 7.6 6769 1 US-08-480-784-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-487-002-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20,		38	161.6	7.6	90541	4	US-09-759-359A-3	٠, ٣
161.4 7.6 99500 4 US-09-798-096-10 Sequence 10, 161.2 7.6 6769 1 US-08-480-784-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-487-002-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-554B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20		39	161.4	7.6	1426	4	US-09-620-312D-967	ינ ס
161.2 7.6 6769 1 US-08-480-784-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-487-002-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-554B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20		40	161.4	7.6	99500	4	US-09-798-096-10)
161.2 7.6 6769 1 US-08-483-553-20 Sequence 20, 161.2 7.6 6769 1 US-08-487-002-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-554B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20		41	161.2	7.6	6169	-	US-08-480-784-20	,
161.2 7.6 6769 1 US-08-487-002-20 Sequence 20, 161.2 7.6 6769 1 US-08-483-554B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20,		42	161.2	7.6	6949	Н	US-08-483-553-20	
161.2 7.6 6769 1 US-08-483-554B-20 Sequence 20, 161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20,		43	161.2	7.6	6269	П	US-08-487-002-20	,
161.2 7.6 6769 1 US-08-488-011B-20 Sequence 20,		44	161.2	7.6	6949	Н	US-08-483-554B-20	
		45	161.2	7.6	6929	Н	US-08-488-011B-20	20,

```
SQUENCE 32, Application US/09724864

Faquence 32, Application US/09724864

Fatent No. 6380362

GENERAL INFORMATION:

APPLICANT: Watson, James D

APPLICANT: Wurison, James G.

TITLE OF INVENTION: Polynucleotides and methods for their use.

FILE REFERENCE: 11000.1050U1

CURRENT APPLICATION NUMBER: US/09/724,864

CURRENT APPLICATION NUMBER: U.S. No. 6380362 60/171,678

PRIOR FILING DATE: 1999-12-23

NUMBER OF SEQ ID NOS: 72

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 32

LENGTH: 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGCGCTCCCCAGCGAGGCCGTGAACCTTCCCAGCAAGAGGGGGTGGTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCAGGCGCAG-GGCGGGCCAGGATCATGTCCACCACCACCACGAAGTGGTGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1353;
                                                                                                                                                                                                                                                                                                                                                                                                                             34.6%; Score 733; DB 4; Length 13
76.9%; Pred. No. 3.9e-185;
live 0; Mismatches 275; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 1006; Conser
                                                                                                                                                                                                                                                                                                                                         ; TYPE: DNA
; ORGANISM: Mouse
US-09-724-864-32
US-09-724-864-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ծ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ਨੇ
```

æ

105 119 165 179 225 239 285

106 120

d

8 g

TICCTCCTGTCCATCCTGGGGCTGGCTGCATCGCGGCCACCGGGATGGACATGTGG 166 CITCTCTGTCCTCTGGGTCTGGCCGGCTGCATAGCCGCCACTGGGATGGACATGTGG AGCACCCAGGACCTGTACGACAACCCCGTCACCTCTTCCAGTACGAAGGGCTCTGG 226 AGCACTCAAGACCTGTATGACAACCCAGTCACCGCCGTGTTCCAGCATGAAGGGCTCTGG

180

셤 8

240 286 300

ठ ద

AGGAGCTGCGTGAGGCAGAGTTCAGGCTTCACCGAATGCAGGCCCTATTTCACCATCCTG

GGACTTCCAGCCATGCTGCAGGCAGTGCGAGCCCTGATGATCGTAGGCATCGTCCTGGGT

346

ò

9

299 345

```
1236
                                                                                                                                                                                                                                                                                                                                                            1002
                                                                                                                                                                                                                                                                                                                                                                                                                                   1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1176
                                                                                                                                                                                                                                                                                                                                                                                                1907
                                                                                                                                                                                                                                                                                                                                                                                                                 1124
                                                                                                                                                                                                                                                                                                                                         chaccrererechedadanacccrrcccandandadcreecc-chadechadedagr 1004
                                                                                                                                                                                                                                                                                                                                                                              1064
                                                                                                                                                                                                                                                                                       890
                                                                                                                                                                                                                                                                                                         945
                                                                                                                                                                                                                                                                                                                          942
                                                                                                                                                                                                                770
                                                                                                                                                                                                                                   825
                                                                                                                                                                                                                                                    830
                                                                                                                                                                                                                                                                     885
                                                                                                                                                                                               765
                                                                                                                                           650
                                                                                                                                                                             710
                                 479
                                                                                      585
                                                                                                        590
                                                                                                                          645
                                                                                                                                                             705
419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTAAATATAACT--TTCTACTCTGATGAGAAATGTGGTTTTAATCTCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      iaccejagactitetiticaiciégigaregaaideaaitigacteacaedia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGATGATTTAGACAGACTCCCCCTCTTCCTCCTAGTCAATAAACCCATTGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAATGGTTTAGAGAAACTTTC---CTTCCTCGTACTTAATAAGCCTGCTGATGG
                                                                                                                                                                                                                                                                                                                                                                                                               rcańagogagetragacagietrogecacargietergeeretaaanaretecareaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                   cagitarcetitardagitadagecetracacteacitrageceaeceter
                                                                                                                                                                                                                                                                                                                                                             GATITICITICITICATION CACACACACACATACAAAAACCTTCCATITCA
                                                                                                                                                                                                                                                                                                                                                                        GAGTTA----TTTATGAATTAGAGGCTATAGCTCACATTTTCAATCCTCTATTT
                                                                                                                                                                                           dengirentraceárdeereradeecaaaardirideeraeadeeregadeerintaadeee
                                                                                                                                                                                                                                                                                       AGGIACAATCITAICCITCCAAGCACGACIAIGIGIAAIGCICIAAGACCICI
                                                                                                                                                                                                                                                                                                 886 GAAGACGATGAACAGTCTCATCCTACCAAGTATGACTATGTGTAGTGCTCTAAGACCCGC
                                                                                                                                                                                                                                                                                                                          -----GGAGAGCTCACCCAAAAAAAAGGAGATC
                                                                                                                                                                                                                                                    GCTTTGGGTCCAACACCAAAACAAGAAGATATACGATGGAGGTGCCCGCACA
                                                                                                                                                                                                                                                              CTTATCATGCCTCAGGCCACAGTGTTGCCTACAAGCCTGGAGGCTTCAAGGCC
                                                                               AGGIACACATTTGGTGCGGCTCTGTTCGTGGGCTGGGTCGCTGGAGGCCTCACACTAATT
                                                                                                                                                                               GGGGGTGTGATGTGCATCGCCTGCCGGGCCTGGCACCAGAAGAAACCAACTACAAA
CCTCCTGGTATCCATCTTTGCCCTGAAATGCATCCGCATTGGCAGCATGGAG
        CCAAAGCCAACATGACACTGACCTCCGGGATCATGTTCATTGTCTCAGGTCTT
                                           TTGCTGGAGTGTCTGTGTTTGCCAACATGCTGGTGACTAACTTCTGGATGTCC
                                                                                                        -- CCGGCATGGGTGGTGCTGCTGTTCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTATTTCCCAGCTTATCCCCAAGAAACTTTTGAAAGGAAAGAGTAGA 1285
                                                                                                                                                                                                                                                                                                                             CAGCACGGGCGGAAGAAACTCCC
                                                                                                           ACAGCTAACATGTACA---
                                                                                                                                                                                                                                                                                                                                                                         cTACCT1
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACAGCI
                                     GACTCTG
                                                                                                                                                                                                                    GCCGTTT
                                                                                                                                                                                                                                                       AGCACTG
                                                                                                                                                                                                                                                                                          GAGGACG
                                                                                                                                                                                                                                                                                                                                                                CCATCTA
  GCCATTG
                                                                        TGTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACATIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTILL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1185 GCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                    1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1237
                                                                                                                                                                                                                                                                                                                                                                                                  1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1302
                                                                                                                                                                                                                                                                                                                                                                                 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1119
                                                                                                                                                                                                                    711
                                                                                                                                                                                                                                     994
                                                                                                                                                                                                                                                                        826
                                                                                                                                                                                                                                                                                          831
                                                                                                                                                                                                                                                                                                                             891
                                                                                                                                                                                                                                                                                                                                              946
                                                                                                                                                                                                                                                                                                                                                                943
                                                                                                                                                                                                                                                                                                                                                                                                                    1065
                                                                                                                                                              646
                                                                                                                                                                                 651
                                                                                                                                                                                                                                                       771
                                                                                                                                                                                                  706
                                                                                         526
                                                                                                            540
                                                                                                                                              591
                  406
                                     420
                                                       466
                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           상
유
                                                                                                                                                                                                                                원
경
경
                                                                                                                                                                                                                                                                                   8 6 8 6
                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                ठ
                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                              $ $ $ $ $ $ $ $ $ $ $ $ $ $ $
```

```
Ellen M. et al
ISOLATED HUMAN ENZYME PROTEINS, NUCLEIC
ACID MOLECULES ENCODING HUMAN ENZYME PROTEINS, AND USES
RESULT 2
US-09-820-924-3
; Sequence 3, Application US/09820924
; Patent No. 6555351
; GENERAL INFORMATION:
; APPLICANT: BEASLEY, Ellen M. et al
; TITLE OF INVENTION: ISOLATED HUMAN E;
; TITLE OF INVENTION: ACID MOLECULES
```

4:

```
31956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2082
                                                                                                                                                                                                                                                                                                                                                                       31784 AGTTTGAGACCAGCCTGGGCAACATGGCGAAACCTCTGTCTACAAGGAATAC-----A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31837 AAAATTAGCTGGGTGTGGTAGTGCACACCTGAAGTCCCAGCTACCTGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAGGATCACTTGAGCCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1844 AGTTCGAGACTAGCCTGGGCAACATGGAGAAGCC-CTGTCTCTACAAATACAGAGAA
                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Yeung, George
TITLE OF INVENTION: METHODS AND MATERIALS RELATING TO CD39-LIKE
TITLE OF INVENTION: POLYPEPTIDES
TITLE OF INVENTION: POLYPEPTIDES
TITLE OF INVENTION: POLYPEPTIDES
TITLE OF INVENTION: POLYPEPTIDES
CURRENT APPLICATION NUMBER: US/09/608,285A
CURRENT FILING DATE: 2000-06-30
PRIOR APPLICATION NUMBER: 09/557,800
PRIOR APPLICATION NUMBER: 09/481,238
PRIOR FILING DATE: 2000-04-25
PRIOR FILING DATE: 2000-04-25
PRIOR FILING DATE: 2000-04-25
PRIOR FILING DATE: 1999-08-09
PRIOR FILING DATE: 1999-08-09
PRIOR FILING DATE: 1999-07-16
PRIOR FILING DATE: 1999-07-09
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1999-03-09
                                                                                                                                                                                                                                                        Length 39982;
                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                             DB 4;
                                                                                                                                                                                                                                                          8.2%; Score 174.4; DB 4; 77.6%; Pred. No. 1.3e-35; iive 0; Mismatches 61;
; TITLE OF INVENTION: THEREOF; FILE REFERENCE: CL001213; CURRENT APPLICATION NUMBER: US/09/820,924; CURRENT FILING DATE: 2001-03-30; NUMBER OF SEQ ID NOS: 4; SOFTWARE: FastSEQ for Windows Version 4.0; SEQ ID NO 3; LENGTH: 39982; TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 8, Application US/09608285A Patent No. 6335013 GENERAL INFORMATION: APPLICANT: Ford, John
                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 77.6
Matches 239; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Ford, John
APPLICANT: Mulero, Julio
APPLICANT: Yeung, George
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32017 AAGACATT 32024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2083 CAGCAAGT
                                                                                                                                                                                              , ORGANISM: Human
US-09-820-924-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -09-608-285A-8/c
                                                                                                                                                                                                                                                                                                                                                     1784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ਨੋ
                                                                                                                                                                                                                                                                                                                                                      ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                         à
```

```
ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                       1842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1902
                                                                                                                                                                                                                                                                                                                                                                                        3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG 1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 4
US-09-350-836B-8/C

Sequence 8, Application US/09350836B

Patent No. 6387645

GENERAL INFORMATION:

APPLICANT: Mulero, John

TITLE OF INVENTION: METHODS AND MATERIALS RELATING TO NOVEL CD39-LIKE

TITLE OF INVENTION: POLYPEPTIDES

TITLE OF INVENTION: POLYPEPTIDES

TITLE OF INVENTION: POLYPEPTIDES

FILE REFERENCE: 28110/35761

CURRENT FILING DATE: 1999-07-09

PRIOR PILING DATE: 1999-07-16

PRIOR PILING DATE: 1998-07-16

PRIOR PILING DATE: 1998-07-16

PRIOR PILING DATE: 1998-07-16

PRIOR PILING DATE: 1998-07-04

PRIOR PILING DATE: 1999-02-04

NUMBER OF SEQ ID NOS: 23

COFFWANDE: DATE: 1999-02-04
                                                                                                   PRATURE:

NAME/KEY: misc feature

LOCATION: (3409)

OTHER INFORMATION: n = adenine or guanine or cytosine or thymidine

LOCATION: (9214)

OTHER INFORMATION: n = adenine or guanine or cytosine or thymidine

LOCATION: (9303)

OTHER INFORMATION: n = adenine or guanine or cytosine or thymidine

LOCATION: (9303)

OTHER INFORMATION: n = adenine or guanine or cytosine or thymidine

LOCATION: (9311)

COTHER INFORMATION: n = adenine or guanine or cytosine or thymidine

LOCATION: (9311)

OTHER INFORMATION: n = adenine or guanine or cytosine or thymidine

US-09-608-285A-8
                                                                                                                                                                                                                                                                                                                                                                                                                  IGTAATCCTAGCACTTTGGGAGGCTGAGGAGGAAGGATCACTTGAGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTTACAAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                             or thymidine
                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                  8.1%; Score 170.8; DB 4; Length 9365; ilarity 72.4%; Pred. No. 5.2e-35; Conservative 26; Mismatches 53; Indels 6;
  1998-07-16
                   ;: bv
Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   411
                                                                           TYPE: DNA
ORGANISM: Homo sapiens
PRIOR FILING DATE:
NUMBER OF SEQ ID NOS
SOFTWARE: Patentin'
                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 223; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patentin V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGGATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                 GCTCACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RAGITYRAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTCAYRCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAAATAAA
                                            SEQ ID NO 8
LENGTH: 9365
                                                                                                                                                                                                                                                                                                                                                                                                                                               7714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2081
                                                                                                                                                                                                                                                                                                                                                                                                                  1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Бb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ठ
```

```
1842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1843 AAGTICGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTCTACAAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCAGCCAGGTGA--CATAGCGAGATCCTGTCTAAAAAAATAAAAATAATAATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: misc feature

JOCATION: (3409)

OTHER INFORMATION: n= adenine or guanine or cytosine or thymine

JOCATION: (9214)

OTHER INFORMATION: n= adenine or guanine or cytosine or thymine

NAME/KEY: misc feature

JOCATION: (9303)

OTHER INFORMATION: n= adenine or guanine or cytosine or thymine

NAME/KEY: misc feature

JOCATION: (93103)

OTHER INFORMATION: n= adenine or guanine or cytosine or thymine

JOCATION: (9311)

OTHER INFORMATION: n= adenine or guanine or cytosine or thymine

JOCATION: (9311)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 4; Length 9365;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 8.1%; Score 170.8; DB 4; Best Local Similarity 72.4%; Pred. No. 5.2e-35; Matches 223; Conservative 26; Mismatches 53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 5
US-09-370-265-8/c
; Sequence 8, Application US/09370265
; Patent No. 6447771
; GENERAL INFORMATION:
                                                                                                                    exon
(1820)..(1855)
exon
(2467)..(2555)
                                                                                                                                                                                                                                                                      exon
(5847)..(5987)
LENGTH: 9365
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: exon
                                                                                          exon
(1281)..(1580)
                                                                                                                                                                              exon (2863).. (2942)
                                                                                                                                                                                                               exon
(3889)..(3950)
                                                                                                                                                                                                                                                                                                                                   exon
(8556)..(9365)
                                                                                                                                                                                                                                                                                                     exon
(6966)..(7138)
                                                                                                                                                                                                                                                        (4894) . . (4995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2081 CACAGCAA 2088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAAATAAA 7411
                                                           exon (1)..(288)
                                                                                                                                                                                                                                           exon
                                                                                                                                                                                                                                                      LOCATION:
NAME/KEY:
LOCATION:
NAME/KEY:
LOCATION:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2023
                                                                         LOCATION:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7418
                                                                                                                   NAME/KEY:
LOCATION:
NAME/KEY:
LOCATION:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                        LOCATION:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1963
                                                                                                                                                                                            LOCAT
```

```
METHODS AND MATERIALS RELATING TO NOVEL CD39-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               = adenine or guanine or cytosine or thymine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                thymine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       thymine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cytosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cytosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cytosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or
APPLICANT: Ford, John
APPLICANT: Mulero, Julio
TITLE OF INVENTION: METHODS AND MATERIALS RELATILE OF INVENTION: POLYPEPTIDES
FILE REPERENCE: 28111/3590
CURRENT FILING DATE: 1999-08-09
EARLIER FILING DATE: 1999-07-16
EARLIER FILING DATE: 1999-07-16
EARLIER FILING DATE: 1999-07-16
EARLIER FILING DATE: 1999-07-16
EARLIER FILING DATE: 1999-07-09
EARLIER FILING DATE: 1999-07-09
EARLIER FILING DATE: 1999-07-04
EARLIER FILING DATE: 1999-07-04
EARLIER FILING DATE: 1999-07-04
EARLIER FILING DATE: 1999-07-04
EARLIER FILING DATE: 1998-07-24
EARLIER FILING DATE: 1998-07-24
EARLIER FILING DATE: 1998-07-24
EARLIER FILING DATE: 1998-07-16
EARLIER FILING DATE: 1998-07-19
EARLIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              guanine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       guanine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     guanine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
NAME/KEY: CDS
LOCATION: (3887)...(3952)
FEATURE:
NAME/KEY: CDS
LOCATION: (4896)...(4994)
FEATURE:
NAME/KEY: CDS
LOCATION: (5846)...(5986)
FEATURE:
NAME/KEY: CDS
LOCATION: (6965)...(7138)
FEATURE:
NAME/KEY: CDS
LOCATION: (6965)...(7138)
FEATURE:
NAME/KEY: CDS
LOCATION: (3409)
OTHER INFORMATION: n = adenine or FEATURE:
NAME/KEY: misc_feature
LOCATION: (3409)
OTHER INFORMATION: n = adenine or FEATURE:
NAME/KEY: misc_feature
LOCATION: (9214)
OTHER INFORMATION: n = adenine or FEATURE:
NAME/KEY: misc_feature
LOCATION: (9214)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: misc feature
LOCATION: (9303)
OTHER INFORMATION: n = adenine ON
FEATURE:
NAME/KEY: misc feature
LOCATION: (9311)
OTHER INFORMATION: n = adenine ON
S-09-370-265-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ġ
```

·-

```
1902
                                                                                                                                                                            7598
                                                                                                                                                                                                               1962
                                                                                                                                                                                                                                                                                 2022
                                                                                                                                                                                                                                                                                                                    7479
                                                                                                                                                                                                                                                                                                                                                      2080
                                                                                                                                                                                                                                                                                                                                                                                         7419
                                                                                                                                                                                                                                                 7538
                                   щ
•-
                                                                                                                                                                                                                                                                                                                                                                           AAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTTACAAAATACAGAGAA
                                                                                                                                                                                                            AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                  AAAATTAGCCRGGCGTGGTGGCGCRYGCCTGTAATCCCAGCTACTYGGGAGGCTGAGGCA
                                                                                                                                                                                                                                                                                                   GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                      thymidine
                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-U9-557-800C-8/C
; Sequence 8, Application US/09557800C
; Patent No. 6476211
; GENERAL INFORMATION:
; APPLICANT: Ford, John
; APPLICANT: Ford, John
; APPLICANT: Ford, John
; APPLICANT: Wilero, Julio
; APPLICANT: Wilero, Julio
; TITLE OF INVENTION: Polypeptides
; TITLE OF INVENTION: Polypeptides
; TITLE OF INVENTION: Polypeptides
; FILE REFERENCE: 28110/36457
; CURRENT APPLICATION NUMBER: US/09/557,800C
; CURRENT FILING DATE: 2000-01-11
; PRIOR APPLICATION NUMBER: 09/481,288
; PRIOR FILING DATE: 1999-08-09
; PRIOR FILING DATE: 1999-07-09
; PRIOR FILING DATE: 1999-07-04
; PRIOR FILING DATE: 1999-07-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               thymidine
                                     9
Length 9365;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OR
                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cytosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cytosine
 ; Score 170.8; DB 4;
; Pred. No. 5.2e-35;
26; Mismatches 53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     guanine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                guanine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: (9214)
OTHER INFORMATION: n = adenine or FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OĽ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    adenine
    tch 8.1%;
al Similarity 72.4%;
223; Conservative 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7418 TAAATAAA 7411
                                                                                                                                                                                                                                                                                                                                                                                                                                 CACAGCAA 2088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 56
SOFTWARE: Patentin Ver.
SEQ ID NO 8
LENGTH: 9365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 6
US-09-557-800C-8/c
                                                                                                                                                                                                                                                                                                                        7537
                                                                                                                                                                                                                                                                                                                                                                                              7478
        Query Match
Best Local S
Matches 223
                                                                                                                                                  1843
                                                                                                                                                                                                                                                       7597
                                                                                                                                                                                                                                                                                         1963
                                                                                                                                                                                                                                                                                                                                                             2023
                                                                                                                                                                                                                                                                                                                                                                                                                                 2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
                                                                             1783
                                                                                                                                                                                                                    1903
                                                                                                                                                                                  g
                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                         ਨੇ
                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                              ₽
                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                    ठ
                                                                                                           ద
                                                                                                                                                  ð
                                                                                                                                                                                                                      ö
```

S

us-10-063-731-117.rni

```
AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGTTCGAGACTAGCCTGGGCAACATGGAGGAGGCCCTGTCTTACAAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                              9365;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 8.1%; Score 170.8; DB 4; Best Local Similarity 72.4%; Pred. No. 5.2e-35; Matches 223; Conservative 26; Mismatches 53;
                                                                                                                                                                                                                                                         O
                                                                                                                                                                                                                                                                                                    υ
                                                                                                                                                                                                                                                                                                                                                U
                                                                                                                                                                                                                                                                                                                                                                                            or
                                                                                                                                                                                                                                                         or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 8
US-09-608-285A-42/c
; Sequence 42, Application US/09608285A
; Patent No. 6335013
; GENERAL INFORMATION:
; APPLICANT: Ford, John
; APPLICANT: Mulero, Julio
; APPLICANT: Yeung, George
                                                                                                                                                                                                                                                                                                                                                                                           or t
                                                                                                                                                                                                                                                                                                   or
                                                                                                                                                                                                                                                                                                                                                or
                                                                                                                                                                                                                                                         ρ
                                                                                                                                                                                                                                                                                                                                                                                           þ
                                                                                                                                                                                                                                                                                                    ы
                                                                                                                                                                                                                                                                                                                                                b
                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: misc feature; LOCATION: (9311); OTHER INFORMATION: n = a or US-09-370-625A-8
                                                                                                                                                                                                                                                                                                                                                or
                                                                                                                      NAME/KEY: exon
LOCATION: (5847)...(5987)
FRATURE:
NAME/KEY: exon
LOCATION: (6966)...(7138)
FEATURE:
NAME/KEY: exon
LOCATION: (8556)...(9365)
                                                                                                                                                                                                                                                        ಥ
                                                                                                                                                                                                                                                                                                                                                ಥ
                                                                                                                                                                                                                          NAME/KEY: misc feature
LOCATION: (3409)
OTHER INFORMATION: n = a
FEATURE:
NAME/KEY: misc feature
LOCATION: (9214)
OTHER INFORMATION: n = a
FEATURE:
NAME/KEY: misc feature
LOCATION: (9303)
OTHER INFORMATION: n = a
FEATURE:
                                                                                                                                                                                                                                                                                                   ಡ
                        exon
(2863)..(2942)
                                                         exon
(3889)..(3950)
                                                                                         exon (4894)..(4995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACAGCAA 2088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAAATAAA
                                          FEATURE:
NAME/KEY:
LOCATION:
FEATURE:
NAME/KEY:
LOCATION:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7418
                                                                                                                                                                                                                   FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ્ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          dd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RELATING TO NOVEL CD39-LIKE POLYPEPTIDES
                                                                                                                                                                                                      1902
                                                                                                                                                                                                                                                  1962
                                                                                                                                                                                                                                                                        7538
                                                                                                                                                                                                                                                                                                                   7479
                                                                                                                                                                                                                                          AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                  CTGTAATCCTAGCACTTTGGGAGGCTGAGGAGGAAGGATCACTTGAGCCCAG
                                                                                                                                                               AAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCCTACAAATACAGAGAAA
                                                                                                                                                                                                                                                          CTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                   thymidine
                                                                          or thymidine
                                                                                                                                 9
                                                                                                      8.1%; Score 170.8; DB 4; Length 9365;

Y 72.4%; Pred. No. 5.2e-35;

rvative 26; Mismatches 53; IndelB 6;
                             guanine or cytosine or
                                                                          cytosine
                                                                        guanine or
                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 7
US-09-370-625A-8/C

Sequence 8, Application US/09370625A

Patent No. 6600032

GENERAL INFORMATION:
APPLICANT: Ford, John
APPLICANT: Mulero, Julio
ITILE OF INVENTION: METHODS AND MATERIALS REL
CURRENT APPLICATION NUMBER: US/09/370, 625A
CURRENT FILING DATE: 1999-08-09
PRIOR APPLICATION NUMBER: PCT/US99/16180
PRIOR FILING DATE: 1999-07-16
PRIOR FILING DATE: 1999-07-09
PRIOR FILING DATE: 1999-03-19
NUMBER OF SEQ ID NOS: 39
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 8
LENGTH: 9365
                             or
                                                                         or
                            = adenine
                                                                       = adenine
; NAME/KEY: misc_feature; LOCATION: (9303)
; OTHER INFORMATION: n = a; FEATURE:
; NAME/KEY: misc_feature; LOCATION: (9311)
; OTHER INFORMATION: n = a; US-09-557-800C-8
                                                                                                                                                                                                                                                                                                                                                                                  2088
                                                                                                                                                                                                                                                                                                                                                                                                       7411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              580)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                855)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  555)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  exon
(1281)..(15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     exon
(2467)..(25
                                                                                                   Query Match
Best Local Similarity
Matches 223; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (1) .. (288)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      exon (1820)..(1
                                                                                                                                                                                                                                                                                        GGAGGATCA
                                                                                                                                                  1783 GCTCACAC
                                                                                                                                                                                                                                                                 AAAATTAG
                                                                                                                                                                                                                                                                                                                                                                              CACAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                     7418 TAAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   exon
                                                                                                                                                                                                1843
                                                                                                                                                                                                                                           1903
                                                                                                                                                                                                                                                                                                            7537
                                                                                                                                                                                                                                                                  7597
                                                                                                                                                                                                                                                                                                                                                          7478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
NAME/KEY:
LOCATION:
FEATURE:
                                                                                                                                                                                                                                                                                        1963
                                                                                                                                                                                                                                                                                                                                    2023
                                                                                                                                                                                                                                                                                                                                                                                2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY
                                                                                                                                                  ठ
                                                                                                                                                                                              à
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                          ਠੋ
                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                               ठ
```

1962 7538

Gaps

us-10-063-731-117.rni

```
10778 TAAATAAA 10771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2081 CACAGCAA 2088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2.0839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAAICAGCCAGTCAIGGIGGCATACACCIGIAGICCCAGCATTCCGGGAGGCIGAGGIG 1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCCAGCCAGGTGA--CATAGCGAGATCCTGTCTAAAAAAATAAAAATAAATAATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    || ||||| |||| ||||||| : ||:||||||||||: ||||: ||||: |||| TCGCTTGAACCCA-GGAGGYGRAGGYTGCAGTGAGCYGWGATCRYGCCAYTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1843 AAGTICGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTACAAAATACAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc feature
LOCATION: (13641)
CTHER INFORMATION: n = adenosine or guanine or cytosine or thymidine
US-09-608-285A-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; DB 4; Length 14747;
.8e-35;
es 53; Indels 6;
    METHODS AND MATERIALS RELATING TO CD39-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8.1%; Score 170.8;
larity 72.4%; Pred. No. 6.8
Conservative 26; Mismatches
                                                              NUMBER: US/09/608,285A
: 2000-06-30
UMBER: 09/583,231
                                                                                                                                                                                                             NUMBER: 09/370,265
1999-08-09
NUMBER: PCT/US99/16180
TITLE OF INVENTION: METHODS AND MATERIA TITLE OF INVENTION: POLYPEPTIDES FILE OF INVENTION: POLYPEPTIDES FILE OF INVENTION: POLYPEPTIDES FILE OF INVENTION NUMBER: US/09/608,28 CURRENT FILING DATE: 2000-06-30 PRIOR APPLICATION NUMBER: 09/583,231 PRIOR FILING DATE: 2000-04-25 PRIOR FILING DATE: 2000-04-25 PRIOR FILING DATE: 2000-01-11 PRIOR PILING DATE: 1999-08-09 PRIOR FILING DATE: 1999-08-09 PRIOR FILING DATE: 1999-08-09 PRIOR FILING DATE: 1999-07-16 PRIOR PILING DATE: 1999-07-16 PRIOR PILING DATE: 1999-07-09 PRIOR FILING DATE: 1999-03-19 PRIOR PILING DATE: 1999-03-19 PRIOR PILING DATE: 1999-07-04 PRIOR PILING DATE: 1999-07-04 PRIOR PILING DATE: 1999-07-24 PRIOR PILING DATE: 1998-07-24 PRIOR PILING DATE: 1998-07-24 PRIOR FILING DATE: 1998-07-24 PRIOR FILING DATE: 1998-07-16 NUMBER: 09/118,205 PRIOR FILING DATE: 1998-07-24 PRIOR FILING DATE: 1998-07-16 NUMBER: PALENTIN NUMBER: 09/118,205 PRIOR FILING DATE: 1998-07-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 9
US-09-557-800C-42/c
; Sequence 42, Application US/09557800C
; Patent No. 6476211
; GENERAL INFORMATION:
; APPLICANT: Ford, John
; APPLICANT: Mulero, Julio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAAATAAA 10771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACAGCAA 2088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similari
Matches 223; Cons
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGGAJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GRAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ID NO 42
3NGTH: 14747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGIH:
```

```
1963 GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1903 AAAATCAGCCAGTCATGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1843 AAGTICGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTACAAAATACAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: misc feature; LOCATION: (13641); OTHER INFORMATION: n = adenosine or guanine or cytosine or thymidine US-09-557-800C-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 10
US-09-608-285A-59/c
; Sequence 59, Application US/09608285A
; Patent No. 6335013
; GENERAL INFORMATION:
; APPLICANT: Ford, John
; APPLICANT: Mulero, Julio
; APPLICANT: Yeung, George
; TITLE OF INVENTION: METHODS AND MATERIALS RELATING TO CD39-LIKE
; TITLE OF INVENTION: POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 14747;
APPLICANT: Yeung, George
TITLE OF INVENTION: Methods and Materials Relating to CD39-Like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 8.1%; Score 170.8; DB 4; Best Local Similarity 72.4%; Pred. No. 6.8e-35; Matches 223; Conservative 26; Mismatches 53;
                                                                                 TITLE OF INVENTION: MCLINCA CITY TITLE OF INVENTION: POlypeptides
TITLE OF INVENTION: Polypeptides
FILE REFERENCE: 28110/36457
CURRENT APPLICATION NUMBER: US/09/557,800C
CURRENT FILING DATE: 2000-01-11
PRIOR FILING DATE: 2000-01-11
PRIOR APPLICATION NUMBER: 09/370,265
PRIOR FILING DATE: 1999-08-09
PRIOR FILING DATE: 1999-07-16
PRIOR FILING DATE: 1999-07-09
PRIOR FILING DATE: 1999-07-09
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1998-07-24
PRIOR FILING DATE: 1998-07-24
PRIOR FILING DATE: 1998-07-16
NUMBER OF SEQ ID NOS: 56
SOFTWARE: PATENTIN NUMBER: 09/118,205
PRIOR FILING DATE: 1998-07-16
NUMBER OF SEQ ID NOS: 56
SOFTWARE: PATENTIN NUMBER: 09/118,205
PRIOR FILING DATE: 1998-07-16
NUMBER OF SEQ ID NOS: 56
SOFTWARE: PATENTIN NUMBER: 09/118,205
PRIOR FILING DATE: 1998-07-16
NUMBER OF SEQ ID NOS: 56
SOFTWARE: PATENTIN NUMBER: 09/118,205
PRIOR FILING DATE: 1998-07-16
NUMBER OF SEQ ID NOS: 56
SOFTWARE: PATENTIN NUMBER: 09/118,205
PRIOR FILING DATE: 1998-07-16
NUMBER OF SEQ ID NOS: 56
SOFTWARE: PATENTIN NUMBER: 09/118,205
PRIOR FILING DATE: 1998-07-16
NUMBER OF SEQ ID NOS: 56
SOFTWARE: PATENTIN NUMBER: 09/118,205
```

2022

ద

õ

ò

g

à

셤

à

ò 셤 õ 셤

٠,

12069

12128

```
APPLICANT: Pecker, Iris
APPLICANT: Vlodavsky, Israel
TITLE OF INVENTION: POLYNUCLEOTIDE ENCODING A POLYPEPTIDE HAVING HEPARANASE ACTIVITY
FILE REFERENCE: 00/20454
CURRENT APPLICATION NUMBER: US/09/435,739
CURRENT FILING DATE: 2001-06-05
NUMBER OF SEQ ID NOS: 47
SOFTWARE: Patentin version 3.0
                       AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG 1962
                                                                                                     GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                             CTCCAGCCAGGTGA--CATAGCGAGATCCTGTCTAAAAAATAAAAAATAAATGGAA
                                                                                                                                                                                                                                                  23457 GAGITCAAGACCAGCCTGGGCAACATGGCAAAACCACATCTCTACAAAAAACA----CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTGGGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1843 AAGTICGAGACTAGCCIGGGCAACAIGGAGAAGCCCTGICTCTACAAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTC----CGGGAGGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 170.2; DB 4;
Pred. No. 1.8e-34;
); Mismatches 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAAACAAAAAAAAAGTAAAGAAAAGAAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-435-739-42/c; Sequence 42, Application US/09435739; Patent No. 6664105; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 75.4
Matches 254; Conservative
                                                                                                                                                                                                                                                                                                                                         12008 TAAATAAA 12001
                                                                                                                                                                                                                                                                                                       2088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-435-739-42
                                                                                                                                                                                                                                                                                                 2081 CACAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 42
LENGTH: 44848
                                                                               1903
                                                                                                                                                      1963
                                              12244
                                                                                                                                                                                                                             2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23222
                                                                  ठ
                                                                                                         Dp
                                                                                                                                                     ਨੇ
                                                                                                                                                                                d
                                                                                                                                                                                                                          ⋩
                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뎐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTAGCCTGGGCAACATGGAGAAGCCCTGTCTATACAAAATACAGAGAA 1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gарв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           , 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 15977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8.1%; Score 170.8; DB 4;
72.4%; Pred. No. 7.1e-35;
ive 26; Mismatches 53;
FILE REFERENCE: 28110/36570

CURRENT APPLICATION NUMBER: US/09/608,285A

CURRENT FILING DATE: 2000-06-30

PRIOR APPLICATION NUMBER: 09/583,231

PRIOR FILING DATE: 2000-04-25

PRIOR FILING DATE: 2000-04-25

PRIOR APPLICATION NUMBER: 09/481,238

PRIOR APPLICATION NUMBER: 09/481,238

PRIOR APPLICATION NUMBER: 09/481,238

PRIOR APPLICATION NUMBER: 09/370,265

PRIOR APPLICATION NUMBER: 09/370,265

PRIOR APPLICATION NUMBER: 09/370,265

PRIOR APPLICATION NUMBER: 09/350,836

PRIOR FILING DATE: 1999-07-09

PRIOR FILING DATE: 1999-07-09

PRIOR FILING DATE: 1999-07-09

PRIOR PILING DATE: 1999-07-09

PRIOR PILING DATE: 1999-07-09

PRIOR FILING DATE: 1999-07-06

PRIOR FILING DATE: 1998-07-06

PRIOR FILING DATE: 1998-07-16

PRIOR FILING DATE: 1998-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CD39-L4/L66 Gene Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ρι
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTAATCCTAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (11728)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (13691)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (15839)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (9831)..(9887)
CDS
(11613)..(11728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ಗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (2877)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1533)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4439)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4714)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5414)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5802)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7859)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8852)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5812)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (245)..(461)
CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (15702)..(158:
misc_feature
(14871)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (1454) .. (CDS
(2734) .. (2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1843 AAGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS
(5723)..(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS
(4364)...(
CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (4679) ... (
CDS
(5326) ... (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
(7758)...(°CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
(6751)...(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1783 GCTCACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (8712)...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; OTHER INFORMATION: US-09-608-285A-59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (13146)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Simi
Matches 223;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY:
LOCATION:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
LOCATION:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY:
LOCATION:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION NAME/KEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /KEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION
NAME/KEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NOI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ਠੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
```

```
2077
GAACACAGCAAGTCCTAGGAAGTAGGTTAAAACTAAT 2114
                                                                                                                RESULT 12
US-09-227-357-100
; Sequence 100, Application US/09227357
```

23343

10;

Length Indels ω

```
PROTEINS, ENCODING HUMAN SECRETED PROTEINS, AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1962
                                                                                                                                                                                                                                                                1962
                                                                                                                                                                                                                                                                                                                  2022
                                                                                                                                                        1842
                                                                                                                                                                                                            1902
                                                                                                                              ω,
                                                                                                                                                                                                                                     508
                                                                                                                                                                                                                                                                                         568
                                                                                                                                                                                                                                                                                                                                           627
                                                                                                                                                                                                                                                                                                                                                                      685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAATCAGCCAGTCATGGGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10088 AAAATTAGCCAGGCATGGGCATGTACCTGTAGTCCCAGCTACTCAGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1843 AAGTTCGAGACTAGCCTGGGCAACATGGAGAGCCCTGTCTTCTACAAATACAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ---CA
                                                                                                                                                                                                                                                                                       AACATTAGCTGGTTGTGGTGGCACACACTGTAGTCCCAGCTACTTGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                  GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                          AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                392 derendrakiecekadakientraddakaderakaradaradakiraderakadırad
                                                                                                                                                                                                            1843 AAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTCTACAAAATACAGAGAAA
                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                     Length 13205;
                                                                                                                               ٠.
ش
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          47;
                                                                                                                                55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 169.8; DB 4
Pred. No. 1.2e-34;
                                                                                                     Score 170; DB 4;
Pred. No. 1.9e-35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3, Application US/09835811
; Sequence 3, Application US/09835811
; Patent No. 6482936
; GENERAL INFORMATION:
; TITLE OF INVENTION: ISOLATED HUMAN SECRETED PRC; TITLE OF INVENTION: USES THEREOF; TITLE OF INVENTION: USES THEREOF; FILE REFERENCE: CLO012228
; CURRENT APPLICATION NUMBER: US/09/835,811
; CURRENT FILING DATE: 2001-04-17
; NUMBER OF SEQ ID NOS: 5
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8.0%;
ilarity 81.3%;
Conservative
                                                                                                       8.0%;
nilarity 79.9%;
Conservative 0
NUMBER OF SEQ ID NOS: 672
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 100
LENGTH: 685
                                                              ORGANISM: Homo sapiens
US-09-227-357-100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 235; Conserv
                                                                                                         Query Match
Best Local Similarity
Matches 238; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; TYPE: DNA
; ORGANISM: Human
US-09-835-811-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGIH: 13205
                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-835-811-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1963
                                                                                                                                                                                                                                                                                                                                                                                                       628
                                                                                                                                                                                                                                                                                                 509
                                                                                                                                                                                                                                                                                                                         1963
                                                                                                                                                                                                                                                                      1903
                                                      TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                           \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                        d
                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                       8
```

AGGTGACATAGCGAGATCCTGTCTAAAAAAAAAAAAAA

CTCCAGCC-

2023

à

```
9860 AAAAAAT 9853
                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCACACCCATAATCCCAGCACTTTGGAGGCAGACGTTGGAGAATCACTTGAGGCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAATCCTAGCACTTTGGGAGGCTGAGGAGGAAGGATCACTTGAGCCCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTAGCCTGGGCAACATGGAGAAGCCCTGTCTTCTACAAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93525 AGTTCGAGACCAGCCTGGGCAACATGGTGAATCCCTGTCTATACAAAAATA----CAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCATGGTGGCATACACCTGTAGTCCCAGCATTCCGGGAGGCTGAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93580 AAATTAGCTGGGCATGGTGGTGCCTGTAGTCCCAGCTATTTGGGAGGCTGAGGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                10255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 4; Length 98844;
       WRN EXPRESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .7e-34;
                                                                                                                            GENEKAL INFORMATION:

APPLICANT: Donna T. Ward
APPLICANT: Andrew T. Watt
TITLE OF INVENTION: ANTISENSE MODULATION OF
FILE REFERENCE: RTS-0205
CURRENT APPLICATION NUMBER: US/09/791,211
CURRENT FILING DATE: 2001-02-23
NUMBER OF SEQ ID NOS: 90
SEQ ID NO 10
LENGTH: 98844
TYPE: DNA
ORGANISM: Homo BapienB
FEATURE:
NAME/KEY: unBure
LOCATION: 24962
OTHER INFORMATION: unknown
NAME/KEY: unsure
LOCATION: 64383
OTHER INFORMATION: unknown
NAME/KEY: unsure
LOCATION: 65468
OTHER INFORMATION: unknown
NAME/KEY: unsure
LOCATION: 65469
OTHER INFORMATION: unknown
NAME/KEY: unsure
LOCATION: 65470
OTHER INFORMATION: unknown
NAME/KEY: unsure
LOCATION: 65471
OTHER INFORMATION: unknown
NAME/KEY: unsure
LOCATION: 65471
OTHER INFORMATION: unknown
NAME/KEY: unsure
LOCATION: 65471
OTHER INFORMATION: unknown
NAME/KEY: unsure
                                                                                                                                                                          OF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 169.8; Pred. No. 3.7e
                                                                                           ion US/09791211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8.0%;
81.3%;
vative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unknow
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: unsure:
LOCATION: 87130
CTHER INFORMATION: unsure:
LOCATION: 89049
CTHER INFORMATION: unsure:
COCATION: 89049
                                                                                      Sequence 10, Applicat:
Patent No. 6448080
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCACACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAATCAGCC?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGGATCACT
CTCCAGCCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 235; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTTCGAGA
                                                       RESULT 14
US-09-791-211-10
          10207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93699
        d
```

```
RESULT 15
US-09-780-172-18/c

i Sequence 18, Application US/09780172

i Patent No. 6607916

general INFORMATION:

i APPLICANT: Susan M. Freier

j APPLICANT: Susan M. Freier

i APPLICANT: Jacqueline Wyatt

i TITLE OF INVENTION: ANTISENSE MODULATION OF CASEIN KINASE 2-ALPHA EXPRESSION

FILE REFERENCE: RTS-0159

CURRENT FILING DATE: 2001-02-08

i NUMBER OF SEQ ID NOS: 96

seq ID NO 18

i TYPE: DNA

i ORGANISM: Homo sapiens

i FEATURE:

IIS-AA ACCOUNTY

i FEATURE:

IIS-AA ACCOUNTY

i FEATURE:

IIS-AA ACCOUNTY

i RATURE:

IIS-AA ACCOUNTY

IIS-AA ACCOUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAATCAGCCAGTCATGGTGGCATACACCTGTAGTCCCCAGCATTCCGGGAGGCTGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10039 AAAAAAGCCAGGCGTGGCGTGCGCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10159 GCTCACACCTGCAATCCCAGCACTTTGGGAGGCCGAGATGGGTGGATTGCCTGAGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1843 AAGTTCGAGACTAGCCTGGGCAACATGGAGAAGCCCTGTCTTTCAAAATACAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10099 GIGITAGAGACCAGCCTGGGAAACACAGTGAAACCCCATCTCTACTAAAATACAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATCACACCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGAATTGCTTGAACCC-GGGAGGTGGAGGTTGCAGTGAGCCAAGGTCGTGCCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 63000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              н
:-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 169.6; DB 4;
Pred. No. 3.2e-34;
0; Mismatches 79;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 8.0%;
Best Local Similarity 74.0%;
Matches 228; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCAAGT 2090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2083
```

2004, 16:00:45 'n Search completed: September Job time : 121 secs

g

Š 셤 ð

ð

g

ð a ठे